

Receiving Report

Date: 15-06-17

Batch No: 132551

Supplier: KLX

Dart P/O: 28796

Packing Slip: Yes ☒ No ☐
 Invoice: Yes ☒ No ☐
 Receipt: Cash ☐ Cr ☒
 New Supplier Yes ☐ No ☒

Release Note Attached: Yes ☒ No ☐ N/A ☐
 Waybill Attached: Yes ☒ No ☐
 Shipment Complete: Yes ☒ No ☐ N/A ☐
 QC18 Inspection ☐ N/A ☒
 Work Order ☐ N/A ☒

Discrepancies

Part Number	Description	Quantity Ordered	Quantity Rec'd	Quantity Short	Quantity Inspected	Quantity Rejected	Comment / NCR Number

Initials of Receiver

QC12

SP

Production/Admin:

Date

Received/Costing

Initial

Location



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID PO28796

Purchase Order Date 6/11/2015

PO Print Date 6/11/2015

Page Number 1 of 6

Order From :

KLX INC.
88289 EXPEDITE WAY
CHICAGO, IL 33172
USA

VU-KLX01

Ship To : DART AEROSPACE LTD

1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

RECEIVED

Contact Name

Vendor Phone 305-925-2600

Buyer

Chantal Lavoie

Customer POID

Customer Tax #

10127-2607

Ship To Contact

Ship To Phone

Ship Via:

Ship Acct:

Terms

Net 30

Currency

USD

FOB

Destination-Collect

Line Nbr	Reference Vendor Part Number Line Comments Delivery Comments	Description/ Mfg ID	Req Date/ Taxable Promise Date	CD	Req Qty/ Unit of Measure	PO Unit Price	Extended Price
1	AN3-15A ✓ 348	Bolt	6/15/2015 Yes 6/15/2015	FN	75.00 ✓ Each	\$0.20	\$15.00
Line Total:							\$15.00
2	AN3C4A ✓ 33817	Bolt	6/15/2015 Yes 6/15/2015	FN	1,200.00 ✓ Each	\$0.25	\$300.00
Line Total:							\$300.00
3	AN4-13A ✓ 325A	Bolt	6/15/2015 Yes 6/15/2015	FN	300.00 ✓ Each	\$0.22	\$66.00

SP15-06-17

Note:

6/11/2015



Dart Aerospace Ltd..
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Hawkesbury, ON K6A 1K7
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USA

VU-KLX01

Ship To : DART AEROSPACE LTD

1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

Contact Name

Vendor Phone 305-925-2600

Ship To Contact

Ship To Phone

Ship Via:

Ship Acct:

Buyer

Chantal Lavoie

Customer POID

Customer Tax #

10127-2607

Terms

Net 30

Currency

USD

FOB

Destination-Collect

								Line Total:	\$66.00
4	AN4-15A ✓	Bolt	6/15/2015 FN	200.00 ✓	Yes	Each	\$0.25	\$50.00	
								Line Total:	\$50.00
5	AN4-17A ✓	Bolt	6/15/2015 FN	50.00 ✓	Yes	Each	\$0.30	\$15.00	
								Line Total:	\$15.00
6	AN4-42A ✓	Bolt	6/15/2015 FN	40.00 ✓	Yes	Each	\$1.15	\$46.00	
								Line Total:	\$46.00

Note:

6/11/2015



Dart Aerospace Ltd.
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Page Number 3 of 6

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88289 EXPEDITE WAY
CHICAGO, IL 33172
USA

VU-KLX01

Ship To : DART AEROSPACE LTD

1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

Contact Name

Vendor Phone 305-925-2600

Ship To Contact

Ship To Phone

Ship Via:

Ship Acct:

Buyer

Chantal Lavoie

Customer POID

Customer Tax #

10127-2607

Terms

Net 30

Currency

USD

FOB

Destination-Collect

7	AN4-51A ✓	Bolt	6/15/2015 FN	75.00 ✓	\$3.48	\$261.00
			Yes	Each		
	312A	0	6/15/2015			
Line Total:						\$261.00
8	AN4C11A ✓	bolt	6/15/2015 FN	30.00 ✓	\$0.80	\$24.00
			Yes	Each		
	344		6/15/2015			
Line Total:						\$24.00
9	AN5-11A ✓	BOLT	6/15/2015 FN	50.00 ✓	\$0.35	\$17.50
			Yes	Each		
	338		6/15/2015			
Line Total:						\$17.50
10	AN5-34A ✓	Bolt	6/15/2015 FN	25.00 ✓	\$0.97	\$24.25
			Yes	Each		
	330		6/15/2015			

Note:

8815-06-17

6/11/2015



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
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PURCHASE ORDER

Purchase Order ID **PO28796**

Purchase Order Date 6/11/2015

PO Print Date 6/11/2015

Page Number 4 of 6

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88289 EXPEDITE WAY
CHICAGO, IL 33172
USA

VU-KLX01

Ship To : DART AEROSPACE LTD

1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

Contact Name

Vendor Phone 305-925-2600

Ship To Contact

Ship To Phone

Ship Via:

Ship Acct:

Buyer

Chantal Lavoie

Customer POID

Customer Tax #

10127-2607

Terms

Net 30

Currency

USD

FOB

Destination-Collect

Line Total: \$24.25

11 AN5-36A ✓ Bolt 6/15/2015 FN 50.00 ✓ \$0.97 \$48.50
Yes
6/15/2015 Each

Line Total: \$48.50

12 MS20600AD4W4 ✓ RIVET 6/15/2015 FN 500.00 ✓ \$0.19 \$95.00
Yes
6/15/2015 Each

Line Total: \$95.00

13 MS20601-AD4W3 ✓ Rivet 6/15/2015 100.00 ✓ \$0.22 \$22.00
Yes
6/15/2015 Each

Line Total: \$22.00

Note:

6/11/2015



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Purchase Order Date 6/11/2015

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Page Number 5 of 6

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88289 EXPEDITE WAY
CHICAGO, IL 33172
USA

VU-KLX01

Ship To : DART AEROSPACE LTD

1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

Contact Name

Vendor Phone 305-925-2600

Ship To Contact

Ship To Phone

Ship Via:

Ship Acct:

Buyer

Chantal Lavoie

Customer POID

Customer Tax #

10127-2607

Terms

Net 30

Currency

USD

FOB

Destination-Collect

14	MS21043-3	Nut	6/15/2015 Yes 6/15/2015	FN	400.00 Each	\$0.39	\$156.00
Line Total:							\$156.00
15	MS27039-4-20	Screw	6/15/2015 Yes 6/15/2015		100.00 Each	\$0.19	\$19.00
Line Total:							\$19.00
16	NAS1149F0432P	WASHER	6/15/2015 Yes 6/15/2015	FN	500.00 Each	\$0.03	\$15.00
Line Total:							\$15.00
17	NAS1329C3KB130	Insert	6/15/2015 Yes 6/15/2015		20.00 Each	\$1.23	\$24.60

Note:

6/11/2015

SP15-06-17



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Page Number 6 of 6

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USA

VU-KLX01

Ship To : DART AEROSPACE LTD
1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

Contact Name
Vendor Phone 305-925-2600

Ship To Contact
Ship To Phone
Ship Via: —
Ship Acct:

Buyer
Customer POID
Customer Tax # 10127-2607
Terms Net 30
Currency USD
FOB Destination-Collect

18	71401-45	PROCUREMENT QUALITY CLAUSES	6/15/2015	1.00	✓	\$0.00	\$0.00
----	----------	--------------------------------	-----------	------	---	--------	--------

Procurement Quality Clauses
A005 RIGHT OF ENTRY
A012 CHEMICAL AND PHYSICAL TEST REPORTS
A016 PERSONNEL QUALIFICATION
A026 CERTIFICATION OF MATERIAL CONFORMANCE
A032 PUBLIC LAW 101-592 FASTENER QUALITY ACT
A033 STATEMENT OF CONFORMITY/TEST RECORDS
FOR NAS, AN and MS FASTENERS
A040 NOTIFICATION OF QUALITY ESCAPE
A041 QUALITY MANAGEMENT SYSTEM
A043 RETENTION OF QUALITY DOCUMENT

No
6/15/2015

SP F-DC-17

Line Total: \$0.00

PO Total: \$1,198.85

W
CZ

Note: Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.

Change Nbr: 1

Change Date: 6/11/2015



Tel: +1.305.925.2600 • Fax: +1.305.507.7191 • www.KLXAerospace.com
Remit to Address: 88289 Expedite Way, Chicago, IL 60695-0001
Wire Instructions: KLX Inc. • JPMorgan Chase Bank New York
ABA: 021000021 • Account: 304639273 • SWIFT: CHASUS33 • CHIP UID: 0002

INVOICE NUMBER
J058JR

PAGE 1

SEND TO ACCOUNTING

SOLD TO:
002409

DART AEROSPACE LTD
1270 ABERDEEN ST
HAWKESBURY, ON
CANADA K6A 1K7



SHIP TO:

DART AEROSPACE LTD
1270 ABERDEEN ST
HAWKESBURY, ON
CANADA K6A 1K7

ORDER NO. PO28796		DATE 06/12/15	SHIP VIA FEDX INTL P1 COLL		TERMS NET 45	SHIPPING TERMS FOB-STRATFORD		
ITEM NO.	QUANTITY ORDERED	PART NUMBER AND DESCRIPTION		PRICE	UNIT	BACK ORDER	SHIPPED	AMOUNT
1	75	AN3-15A TARIFF: 7318.15.8085 Description BOLT ECCN :9A991 MFR: AIRFASCO INDUSTRIES CTRL#: 2006D03117 LOT#: 12584 LOT QTY: 75 Country of Origin USA These commodities, technology or software were exported from the United States in accordance with the Export Administration Regulations. Diversion contrary to U.S. law is prohibited.		0.200	EA	0	75	15.00
CONTINUED								
MATERIAL TO BE RETURNED MUST HAVE PRIOR AUTHORIZATION BY KLX INC.								

ALL ITEMS ARE SUBJECT TO A 100% RESTOCKING CHARGE.

SHIPPED FROM: 650 LONGBEACH BLVD, STRATFORD, CT 06615

MATERIAL CERTIFICATION: KLX INC. ("KLX AEROSPACE SOLUTIONS") WARRANTS THAT THE ITEMS SUBJECT OF THIS INVOICE WILL BE FREE FROM DEFECTS OF MATERIAL AND WORKMANSHIP AND, AS SET FORTH ON THE MATERIAL CERTIFICATION FORM ACCOMPANYING THE ITEMS SUBJECT OF THIS INVOICE, ARE IN CONFORMITY WITH ALL CURRENT GOVERNMENTAL REQUIREMENTS AND THE SPECIFICATIONS OF THE RESPECTIVE MANUFACTURERS. KLX AEROSPACE SOLUTIONS DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ALL WARRANTIES OF MERCHANTABILITY AND OF FITNESS FOR A PARTICULAR PURPOSE. THE LIABILITY OF KLX AEROSPACE SOLUTIONS IS EXPRESSLY LIMITED EXCLUSIVELY TO REPLACEMENT BECAUSE OF A DEFECT IN MATERIAL OR WORKMANSHIP SUCH REPLACEMENT SHALL OF ANY ITEM WHICH IS REJECTED CONSTITUTE SATISFACTION OF ALL LIABILITY KLX AEROSPACE SOLUTIONS MAY HAVE IN CONNECTION WITH SUCH ITEM, WHETHER LIABILITY IS BASED UPON CONTRACT RIGHTS, NEGLIGENCE, OR OTHERWISE, AND IN NO EVENT SHALL KLX AEROSPACE SOLUTIONS BE LIABLE FOR SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES. FURTHER, KLX AEROSPACE SOLUTIONS MUST BE NOTIFIED OF A REJECTION OF AN ITEM WITHIN 30 DAYS AFTER RECEIPT BY THE CUSTOMER.

PACKING SLIP

BY RECEIVING DELIVERY OF THE ITEMS COVERED BY THIS PACKING SLIP, BUYER AGREES TO THE TERMS AND CONDITIONS OF SALE AT:
<http://www.KLXAerospace.com/conditions-sale/>







P.O. Box 025263, Miami, FL 33102-5263 • Tel: 305.925.2600 • Fax: 305.507.7191
Plant Location: 10000 N.W. 15th Terrace, Miami, FL 33172 • SITA: MIAMMCR
www.KLXAerospace.com

Shipped From: 10000 NW 15 TERRACE, MIAMI, FL 33172

Material Certification

The items set forth on the purchase order referred to below have been visually inspected and the dimensions thereof have been measured by us, and based on the aforesaid, as well as the representation made to us by the manufacturers of the items subject of such purchase order, we hereby certify that such items are in conformity with all current governmental and manufacturer's requirements, specifications, drawings, and conform to the purchase order requirements. Said items are in new condition and have not been obtained from any U.S. Government or Military source and are traceable to KLX Aerospace Solutions.

FIRM: DART AEROSPACE LTD

PURCHASE ORDER#: PO28796

LNE#	QUANTITY	U/M	PART-NUMBER	CUST REF#	LOT-NUMBER	MANUFACTURER	CCODE	MFR DATE	EXP DATE
6	40	EA	AN4-42A		73798	MAC FASTENERS	0RPT4		


Jason Lewis
Senior Director, Global Quality

06/12/15

Inv # 06/12/15

MACFASTENERS, INC.

Packing List

Bill KLX INC.

To: 10000 NW 15th Terrace
Miami, FL 33172
United States

Ship BE AEROSPACE

To: 9835 NW 14TH ST
Miami, FL 33172
United States

Shipment No: 69153
Shipment Date: 05/03/15
Ship Via: United Parcel Service
Order Number: 51447
Order Date: 05/20/14

Customer Code: BE NON-LTA
Phone: (305) 925-2600
PO Number: 0YAH15
Terms: Net 30 Days

LOT #73798

<u>Item</u>	<u>Quantity</u>				<u>Unit</u>	<u>Description</u>	<u>Revision</u>	<u>Job Number</u>
	<u>Open</u>	<u>Shipped</u>	<u>Back Ord</u>	<u>Canceled</u>				
1	7,500	7,773	0		EA	AN4-42A Bolt machine-- Aircraft		73798

Packing Clerk's Initials
MACFASTENERS, INC.

Received In Good Order By
BE AEROSPACE

MAC FASTENERS, INC.
1110 ENTERPRISE
OTTAWA, KANSAS 66067

**CERTIFICATE OF CONFORMANCE
AND
MANUFACTURER'S AFFIDAVIT**

CUSTOMER: KLX AEROSPACE SOLUTIONS

PO: 0YAH15

PART NUMBER: AN4-42A

REV: 3

LOT NUMBER: 73798

MANUFACTURED QUANTITY: 10,000

MILL HEAT NUMBER: 8196269

COUNTRY OF ORIGIN: UNITED STATES OF AMERICA

DFARS 252.225.7009 Compliant

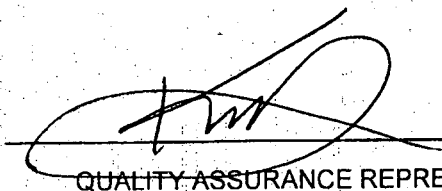
MERCURY FREE CERTIFICATION

MacFasteners certifies that the parts referenced in the above lot number do not contain Mercury or Mercury compounds, and were manufactured in a Mercury free environment.

We certify that the parts furnished against the above referenced purchase order were manufactured by MAC FASTENERS within the United States, and were processed in accordance with all applicable drawings and specifications. Objective evidence of compliance is on file, subject to examination upon request.

Mac Fasteners is a DISC QSLM approved Manufacturer - CAGE Code 0RFT4
Mac Fasteners is an Airbus approved Supplier - 203399

DATE: 04/27/15


QUALITY ASSURANCE REPRESENTATIVE

MAC FASTENERS, INC.
1110 EAST ENTERPRISE
OTTAWA, KS 66067

CHEMICAL & PHYSICAL TEST REPORT

CUSTOMER KLX AEROSPACE SOLUTIONS	PO NUMBER 0YAH15	MFG QUANTITY 10,000	DATE 04/27/15
PART NUMBER AN4-42A	REV 3	LOT NO 73798	PROCUREMENT SPEC NASM6812

MATERIAL TYPE 8740				MATERIAL SPECIFICATION MIL-S-6049/AMS6322				MILL HEAT NUMBER 8196269			SUPPLIER JOHNSTOWN		
C	Si	Mn	P	S	Cu	Ni	Cr	Mo	V	B	Fe	Al	Ti
.40	.26	.90	.014	.011	.12	.42	.50	.21	.005			.032	
	Co	N	Bi	Pb	Mg	Zn		Nb	Sn			Other	
		.0062							.005				

MECHANICAL TEST RESULTS - TESTING PER NASM1312

ULTIMATE TENSILE STRENGTH POUNDS	
5,750	
5,840	
5,780	
5,730	
5,840	
MIN. REQ.	4,080

DOUBLE SHEAR STRENGTH POUNDS / PSI	
8,280	
8,330	
8,250	
8,340	
8,330	
MIN. REQ.	7,360

HARDNESS	
ROCKWELL "C" SCALE	
REQ.	26 - 32 HRC
SAMPLE SIZE	5
ACTUAL RESULTS	
30 - 31 HRC	

METALLURGICAL EXAMINATION			
Discontinuities	<input checked="" type="checkbox"/>	Carb/Decarb	<input checked="" type="checkbox"/>
Grain Flow	<input type="checkbox"/>	Microstructure	<input checked="" type="checkbox"/>
Grain Size	<input checked="" type="checkbox"/>	Appearance	<input checked="" type="checkbox"/>
Thread Inspection FED-STD-H28/20 - ASME B1.3		System <input type="checkbox"/> 21	System <input checked="" type="checkbox"/> 22
		System <input checked="" type="checkbox"/> 23	System <input type="checkbox"/>

NDT/ ADDITIONAL TESTS	
Magnetic Particle Inspection per ASTM E1444	<input checked="" type="checkbox"/>
Liquid Penetrant Inspection per ASTM E1417	<input type="checkbox"/>
Head Marking	<input checked="" type="checkbox"/>
Fatigue Strength	<input type="checkbox"/>
Stress Durability Test NASM1312/5	<input type="checkbox"/>
	<input type="checkbox"/>
Magnetic Permeability ASTM A342 Less than 2.0	<input type="checkbox"/>

TEST CERTIFICATION

WE CERTIFY THAT THE PART NUMBER, LOT NUMBER, AND SAMPLES REFERENCED
ABOVE HAVE BEEN TESTED IN ACCORDANCE WITH THE APPLICABLE
SPECIFICATION
FOR THE TESTS REPORTED HEREIN. THIS CERTIFICATION SHALL NOT BE RE-
PRODUCED, EXCEPT IN FULL, WITHOUT THE APPROVAL OF MAC FASTENERS, INC.


Quality Assurance Representative

MAC FASTENERS, INC.
1110 ENTERPRISE
OTTAWA, KANSAS 66067

HEAT TREAT CERTIFICATION

CUSTOMER: KLX AEROSPACE SOLUTIONS

DATE: 04/27/15

PO NUMBER: 0YAH15

MANUFACTURED QUANTITY: 10,000

PROCESSOR:

PAULO PRODUCTS KCMO - NADCAP ID 4679

LOT NUMBER: 73798

MATERIAL: TYPE 8740

PART NUMBER: AN4-42A

REVISION: 3

REQUIRED HARDNESS: 26 - 32 HRC

SAMPLE SIZE: 5

HARDNESS: 30 - 31 HRC

HEAT TREAT SPECIFICATION AS APPLICABLE: MIL-H-6875/AMS-H-6875/AMS2759/AMS5853/PS-1001

Notes:

The fasteners referenced in this report have been processed, inspected and certified by the Heat Treat Contractor in accordance with all applicable drawings and specifications. Heat Treatment has been verified in accordance with procurement specification and part drawing, by metallurgical and mechanical testing as applicable. Evidence of compliance as well as certification from the Heat Treat Contractor is on file and subject to examination upon request.


QUALITY ASSURANCE REPRESENTATIVE

DE TRAY Plating Works

Specialized Electro-Plating and Polishing
Nickel
Copper
Decorative Chrome
Satin Chrome
Zinc
Cadmium
Passivate
Bright Dip
Strip Copper
Descale

10405 EAST ELEVENTH STREET • INDEPENDENCE, MISSOURI 64052
Phone (816) 252-8411 Fax (816) 252-8527 • E-mail : DeTrayPlating@Aol.com

April 23, 2015

Mac Fasteners
1110 East Enterprise Street
Ottawa, Kansas 66067

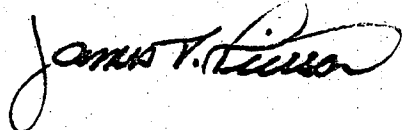
Subject: Certification

This is to certify that the following parts have been cadmium plated per QQ-P-416/AMS-QQ-P-416/NAS4160/AMS2400, Type II, Class 2. Please reference our Invoice# 189591 dated 4/23/15 for:

Lot#- 73798

P.N.- AN4-42A

James T. Pierson, Vice-President



DE TRAY PLATING WORKS



**Johnstown
Wire
Technologies**

124 Laurel Ave,
Johnstown, PA 15906
Phone: 814-532-5680
Fax: 814-532-5684

WORK ORDER
911203

TEST REPORT
LOT NUMBER
K-8196269
SALES ORDER / RLS
008995 / 4

SOLD TO

Mac Fasteners Best Way Distribution
Best Way Distribution
13209 Arrington Rd. Docks 17-20
Grandview, MO 64030
USA



CUSTOMER P.O. 46194	CUSTOMER PART 8740- .2465	QUANTITY 11,657 LBS	COILS LADING NO 6 00129900	SHIPMENT DATE 02/18/2015							
SPECIFICATION MacFast-87246 AMS2301; AMS6322; AMS-S-6049A; MIL-S-6049A 8740 DFARS TS 95000 PSI Max Defense Federal Acquisition Regulation Supplement Silicon Killed Fine Grain Aircraft Quality/Cold Heading Quality Drawn From Annealed Rod Spheroidize Annealed In Process Heavy Phos & Light Lube Ctd Size: .2465 +.0005 -.0005											
CERTIFICATION REQUIREMENTS											
Chemical											
C .40	Mn .90	P .014	S .011	Si .26	Al .032	Ni .42	Cr .50	Mo .21	Cu .12	V .005	
Cb .001	Ti ???????	N .0062	Sn .005								
Physical											
J1 58	J10 42	J11 40	J12 38	J2 58	J3 57	J5 55	J4 56	J6 54	J7 51	J8 48	J9 45
Mechanical											
TEST	UNITS	HIGH	LOW	AVERAGE							
Tensile Str	Lbs/SqIn	86000	85000	86000							
RA Per Cent	Percent	74.2	68.5	71.4							
Decarb FFD	Inches	.000	.000	.000							
Surface def. depth	Inches	.002	.002	.002							
Rod / Melt Source											
Rod Source Republic	Melt Source Republic	Country of Origin USA	Nafta Yes								
End of Certification											

I certify that the results are a true and correct copy of the records prepared and maintained by JOHNSTOWN WIRE TECHNOLOGIES in compliance with the requirements of the cited specification. Chemistry is as reported by the rod / bar supplier and is not in JWT A2LA accreditation. This test report cannot be reproduced or distributed except in full without the written permission of JOHNSTOWN WIRE TECHNOLOGIES. The test results certified herein relate only to the items tested.

Daniel J. Malik
Daniel J. Malik, Director of Quality Assurance

53



CERTIFICATE OF TESTS

1801 EAST 20TH ST.
PHONES: 330-438-5300

REPUBLIC STEEL

LORAIN, OH 44033
FAX: 330-438-56956/25/2014
4:16:00 PM
PAGE 1 OF 2PURCHASE ORD: 86685
PART NUMBER: FXT40AA-.375
ORDER NUMBER: 1591797 - 01
HEAT: 8196269PURCHASE ORDER DATE: 6/2/2014
ACCOUNT NUMBER: 5672-1921-01
SCHEDULE: 1100-95
REVISION: 1

===== CHARGE ADDRESS ===== SHIP TO =====

JOHNSTOWN WIRE TECHNOLOGIES
124 LAUREL AVE
JOHNSTOWN, PA 15906JOHNSTOWN WIRE TECHNOLOGIES
EDWARD ZAPOLA
C/O C & BL RAILROAD
TRACK 629
JOHNSTOWN, PA 15901

----- MATERIAL DESCRIPTION -----
 HOT ROLLED STEEL COILS ALLOY JOHNSTOWN WIRE SPEC RW-100 REVISION DTD 04/21/04 EXC PARA 10.3 AMS
 G322N EXC HARD JOHNSTOWN WIRE SPEC PART NO. FXT40AA REVISION DTD 12/31/00 MIL S 6049A & AMD 1 COND
 B-1 EXC MARK & UT WAIVED AMS 2301K JOHNSTOWN WIRE SPEC RW-005 REVISION DTD 12/31/00 EXC SURFACE
 DEFECTS EF-AISI-8740-H FINE GRAIN VACUUM DEGASSED AIRCRAFT QUALITY FIXED PRACTICE QUALITY RESTRICTED
 CHEMISTRY RESTRICTED MAX INCIDENTAL ELEMENTS
 SIZE: RDS .3750 DIAM X COIL
 RDS 9.5250MM DIAM X COIL

LADLE CHEMISTRY %							
C	MN	P	S	SI	CU	NI	CR
0.40	0.90	0.014	0.011	0.26	0.12	0.42	0.50
V	MO	SN	AL	B	CB	N	
0.005	0.21	0.005	0.032	0.0000	0.001	0.0062	

REDUCTION RATIO 1,177.6 TO 1

----- SEMI - FINISHED RESULTS -----
 GRAIN SIZE TEST ASTM A29/ASTM E112
 PCE H10301 MCQUAID = 7.00000

JOMINY HARDNESS TEST SAE J406/ASTM A255
 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 18 20 22 24 26 28 30 32
 58 58 57 56 55 54 51 48 45 42 40 38 36 35 35 34 32 32 31 30 30 29 29 29

MACRO ETCH TEST ASTM E381/MIL STD 430
 ETCHANT: HCL TEMPERATURE: 170
 S R C
 AVG 1 1 1

MAGNETIC PARTICLE TEST AMS 2301 AMS2304
 IND AVG IND AVG
 FREQ FREQ SEV SEV
 PCE 03 0 0 0 0

----- FINISHED SIZE RESULTS -----
 DECARBURIZATION TEST SAE J419/ASTM E1077/JIS G0558
 ETCHANT = NITAL MAGNIFICATION = 100X

	SPIKE	COMPLETE	TOTAL
	INCHES	INCHES	DEPTH
			INCHES
PCE 7868	0.003	0	0.002

G. KRUTH
DIRECTOR QUALITY ASSURANCE

BY DEBORAH STOKES



CERTIFICATE OF TESTS

1807 EAST 28TH ST.
PHONE: 330-438-5780

LORAIN, OH 44055
FAX: 330-438-5695

REPUBLIC STEEL

6/25/2014
4:16:00 PM
PAGE 2 OF 2

PURCHASE ORD: 86685
PART NUMBER: FXT40AA-.375
ORDER NUMBER: 1591797 - 01
HEAT: 8196269

PURCHASE ORDER DATE: 6/2/2014
ACCOUNT NUMBER: 5672-1921-01
SCHEDULE: 1100-95
REVISION: 1

CAPABLE OF SEAM DEPTH 1/4 MAX DIAMETER NOT LESS THAN .005 MAX

NOTES

CHEMICAL ANALYSIS CONFORMS TO APPLICABLE SPECS: ASTM E415, LBL10129, LBL10130, ASTM E1019, LBL10158, LBL10114, AND ASTM E1085, LBL10184, LBL10188.

NOTES (CONTINUED)

REPUBLIC STEEL HEREBY CERTIFIES THAT THE MATERIAL LISTED HEREIN HAS BEEN INSPECTED AND TESTED IN ACCORDANCE WITH THE METHODS PRESCRIBED IN THE GOVERNING SPECIFICATIONS AND BASED UPON THE RESULTS OF SUCH INSPECTION AND TESTING HAS BEEN APPROVED FOR CONFORMANCE TO THE SPECIFICATIONS.

CERTIFICATE OF TESTS SHALL NOT BE REPRODUCED EXCEPT IN FULL.

ALL TESTING HAS BEEN PERFORMED USING THE CURRENT REVISION OF THE TESTING SPECIFICATIONS.

RECORDING OF FALSE, PICTITIOUS OR FRAUDULENT STATEMENTS OR ENTRIES ON THIS DOCUMENT MAY BE PUNISHED AS A FELONY UNDER FED STATUTES TITLE 18 CHAPTER 47.

THE MATERIAL WAS NOT EXPOSED TO MERCURY OR ANY METAL ALLOY THAT IS LIQUID AT AMBIENT TEMPERATURE DURING PROCESSING OR WHILE IN OUR POSSESSION.

NO WELD OR WELD REPAIR WAS PERFORMED ON THIS MATERIAL.

THE RESULTS REPORTED RELATE ONLY TO THE ITEMS TESTED.

THE PRODUCTS SUPPLIED BY REPUBLIC STEEL DO NOT HAVE TANTALUM, TIN, TUNGSTEN, OR GOLD (COLLECTIVELY, "CONFLICT MINERALS") ADDED DURING PRODUCTION. ANY MEASURABLE AMOUNTS OF THESE ELEMENTS CONTAINED IN OUR STEEL ARE DERIVED FROM RESIDUAL MATERIALS IN THE RECYCLED SCRAP THAT WE PURCHASE FOR ELECTRIC ARC FURNACE STEEL MAKING. THEY ARE NOT NECESSARY TO THE FUNCTIONALITY OR PRODUCTION OF OUR STEEL.

SOURCE INFORMATION

MELT SOURCE: CANTON CAST ROLL MELT COUNTRY: U.S.A HOT ROLL SOURCE: LORAIN 9/10, U.S.A
MELT METHOD: BF BLOOM RED. RATIO: 1177.6

END OF DATA

CC

END OF DATA

WITH SHIPMENT 1 COPY PRINTED AT SHIPPING AREA
FAX SHIP TO 1 COPY ATTENTION EDWARD ZAPOLA
FILE 1 COPY

1-814-532-5684

G. KRUTH
DIRECTOR QUALITY ASSURANCE

BY DEBORAH STOKES

MT Kruth



P.O. Box 025263, Miami, FL 33102-5263 • Tel: 305.925.2600 • Fax: 305.507.7191
Plant Location: 10000 N.W. 15th Terrace, Miami, FL 33172 • SITA: MIAMMCR
www.KLXaerospace.com

Shipped From: 10000 NW 15 TERRACE, MIAMI, FL 33172


Material Certification

The items set forth on the purchase order referred to below have been visually inspected and the dimensions thereof have been measured by us, and based on the aforesaid, as well as the representation made to us by the manufacturers of the items subject of such purchase order, we hereby certify that such items are in conformity with all current governmental and manufacturer's requirements, specifications, drawings, and conform to the purchase order requirements. Said items are in new condition and have not been obtained from any U.S. Government or Military source and are traceable to KLX Aerospace Solutions.

FIRM: DART AEROSPACE LTD

PURCHASE ORDER#: P028796

LNE#	QUANTITY	U/M	PART-NUMBER	CUST REF#	LOT-NUMBER	MANUFACTURER	CCODE	MFR DATE	EXP DATE
10	25	EA	AN5-34A		59085	MAC FASTENERS	ORPT4		


Jason Lewis
Senior Director, Global Quality

06/12/15

Inv # 06/12/15

MAC FASTENERS, INC.
1110 ENTERPRISE
OTTAWA, KANSAS 66067

**CERTIFICATE OF CONFORMANCE
AND
MANUFACTURER'S AFFIDAVIT**

CUSTOMER: B/E AEROSPACE

PO: OBSY50

PART NUMBER: AN5-34A

REV: 2

LOT NUMBER: 59085

MANUFACTURED QUANTITY: 3,500

MILL HEAT NUMBER: 8097603

COUNTRY OF ORIGIN: UNITED STATES OF AMERICA

DFARS 252.225.7009 Compliant

MERCURY FREE CERTIFICATION

MacFasteners Inc. certifies that the parts referenced in the above lot number do not contain Mercury or Mercury compounds, and were manufactured in a Mercury free environment.

We certify that the parts furnished against the above referenced purchase order were manufactured by MAC FASTENERS, INC. within the United States, and were processed in accordance with all applicable drawings and specifications.

Objective evidence of compliance is on file, subject to examination upon request.

DATE: 09/25/12


QUALITY ASSURANCE REPRESENTATIVE

MacFasteners, Inc. is an AS9100C Registered Company- SAI GLOBAL - 0058029

MAG FASTENERS, INC.
1110 EAST ENTERPRISE
OTTAWA, KS 66067

CHEMICAL & PHYSICAL TEST REPORT

CUSTOMER B/E AEROSPACE	PO NUMBER OBSY50	MFG QUANTITY 3,500	DATE 09/25/12
PART NUMBER AN5-34A	REV 2	LOT NO 59085	PROCUREMENT SPEC NASM6812

MATERIAL TYPE 8740				MATERIAL SPECIFICATION MIL-S-6049/AMS6322				MILL HEAT NUMBER 8097603			SUPPLIER JOHNSTOWN		
C	Si	Mn	P	S	Cu	Ni	Cr	Mo	V	B	Fe	Al	Ti
.42	.25	.88	.006	.011	.08	.42	.49	.21	.002			.035	
	Co	N .0069	Bi	Pb	Mg	Zn		Nb	Sn .007			Other	

MECHANICAL TEST RESULTS - TESTING PER NASM1312

ULTIMATE TENSILE STRENGTH POUNDS
8,800
8,800
8,780
8,820
8,780
MIN. REQ. 6500

DOUBLE SHEAR STRENGTH POUNDS / PSI
12,360
12,400
12,380
12,380
12,380
MIN. REQ. 11500

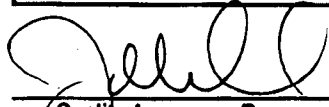
HARDNESS
ROCKWELL "C" SCALE
REQ. 26 - 32 HRC
SAMPLE SIZE 5
ACTUAL RESULTS 27-28 HRC

METALLURGICAL EXAMINATION			
Discontinuities	<input checked="" type="checkbox"/>	Carb/Decarb	<input checked="" type="checkbox"/>
Grain Flow	<input checked="" type="checkbox"/>	Microstructure	<input checked="" type="checkbox"/>
Grain Size	<input checked="" type="checkbox"/>	Appearance	<input checked="" type="checkbox"/>
Thread Inspection FED-STD-H28/20 - ASME B1.3	System <input type="checkbox"/> 21	System <input checked="" type="checkbox"/> 22	System <input type="checkbox"/> 23

NDT/ ADDITIONAL TESTS	
Magnetic Particle Inspection per ASTM E1444	<input checked="" type="checkbox"/>
Liquid Penetrant Inspection per ASTM E1417	<input type="checkbox"/>
Recess Torque Test	<input type="checkbox"/>
Head Marking	<input checked="" type="checkbox"/>

TEST CERTIFICATION

WE CERTIFY THAT THE PART NUMBER, LOT NUMBER, AND SAMPLES REFERENCED ABOVE HAVE BEEN TESTED IN ACCORDANCE WITH THE APPLICABLE SPECIFICATION FOR THE TESTS REPORTED HEREIN. THIS CERTIFICATION SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE APPROVAL OF MAC FASTENERS, INC.


 Quality Assurance Representative
AS9100C REGISTERED
SAI GLOBAL - 0058029

MAC FASTENERS, INC.
1110 ENTERPRISE
OTTAWA, KANSAS 66067

HEAT TREAT CERTIFICATION

CUSTOMER: B/E AEROSPACE

DATE: 09/25/12

PO NUMBER: OBSY50

MANUFACTURED QUANTITY: 3,500

LOT NUMBER: 59085

MATERIAL: TYPE 8740

PART NUMBER: AN5-34A

REVISION: 2

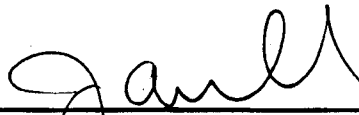
REQUIRED HARDNESS: 26 - 32 HRC

SAMPLE SIZE: 5

HARDNESS: 27-28 HRC

HEAT TREAT SPECIFICATION AS APPLICABLE: MIL-H-6875/AMS-H-6875/AMS2759/AMS5853/PS-1001

The fasteners referenced in this report have been processed, inspected and certified by the Heat Treat Contractor in accordance with all applicable drawings and specifications. Heat Treatment has been verified in accordance with procurement specification and part drawing, by metallurgical and mechanical testing as applicable. Evidence of compliance as well as certification from the Heat Treat Contractor is on file and subject to examination upon request.


A handwritten signature in black ink, appearing to read 'J. A. L.', is written over a horizontal line.

QUALITY ASSURANCE REPRESENTATIVE

DE TRAY

Plating Works

Specialized Electro-Plating and Polishing

Nickel

Copper

Decorative Chrome

Satin Chrome

Zinc

Cadmium

Passivate

Bright Dip

Strip Copper

Descale

10406 EAST ELEVENTH STREET • INDEPENDENCE, MISSOURI 64052
Phone (816) 252-8411 Fax (816) 252-8527 • E-mail : DeTrayPlating@Aol.com

September 20, 2012

Mac Fasteners
1110 Enterprise Street
Ottawa, Kansas 66067

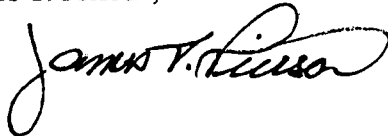
Subject: Certification

This is to certify that the following parts have been electrodeposited cadmium plate per Spec.-QQ-P-416/AMS-QQ-P-416/NAS4160/AMS2400, Type II, Class 2. Please reference our Invoice# 164511 dated 09/20/2012 for:

Lot#-59085

P.N.- AN5-34A

James T. Pierson, Vice-President



DE TRAY PLATING WORKS



**Johnstown
Wire
Technologies**

124 Laurel Ave,
Johnstown, PA 15906

Phone: 814-532-5680
Fax: 814-532-5684

WORK ORDER
910030

TEST REPORT

LOT NUMBER

K-8097603

SALES ORDER / RLS

997198 / 2

SOLD TO

Mac Fasteners, Inc.
1110 Enterprise Street
Ottawa, KS 66067
USA



CUSTOMER P.O. 50516	CUSTOMER PART	QUANTITY 11,439 LBS	COILS 6	LADING NO 00109172	SHIPMENT DATE 03/05/2012							
SPECIFICATION Macfast-87309 AMS2301; AMS6322; AMS-S-6049A; MIL-S-6049A 8740 DFARS Defense Federal Acquisition Regulation Supplement Silicon Killed Fine Grain Aircraft Quality/Cold Heading Quality Drawn From Annealed Rod Spheroidize Annealed In Process Heavy Phos & Light Lube Ctd Size: .3095 +.001 -.000												
CERTIFICATION REQUIREMENTS												
Chemical												
C .42	Mn .88	P .006	S .011	Si .25	Al .035	Ni .42	Cr .49	Mo .21	Cu .08	V .002		
Co .001	Ti ???????	N .0069	Sn .007									
Physical												
AMS 2301 0000	J1 58	J10 43	J11 35	J12 40	J2 58	J3 57	J5 55	J4 56	J6 54	J7 53	J8 50	J9 47
MacroClean E-381 111												
Mechanical												
TEST	UNITS		HIGH		LOW		AVERAGE					
Tensile Str	Lbs/SqIn		84000		84000		84000					
RA Per Cent	Percent		65.8		65.8		65.8					
Decarb FFD	Inches		.000		.000		.000					
Surface def. depth	Inches		.000		.000		.000					
Rod / Melt Source												
Rod Source Republic	Melt Source Republic		Country of Origin USA		Nafta Yes							
End of Certification												

I certify that the results are a true and correct copy of the records prepared and maintained by JOHNSTOWN WIRE TECHNOLOGIES in compliance with the requirements of the cited specification. Chemistry is as reported by the rod / bar supplier and is not in JWT A2LA accreditation. This test report cannot be reproduced or distributed except in full without the written permission of JOHNSTOWN WIRE TECHNOLOGIES. The test results certified herein relate only to the items tested.

D. L. Deetscreek
D. L. Deetscreek
Director of Quality Assurance



1807 EAST 28TH ST.
PHONE: 330-438-5694

LORAIN, OH 44055
FAX: 330-438-5695

CERTIFICATE OF TESTS

REPUBLIC ENGINEERED PRODUCTS

May 16, 2011

PAGE 1

OF 2

PURCHASE ORD: 80355
PART NUMBER: FXT40AA-.375
ORDER NUMBER: 1481447 - 01
HEAT: 8097603

PURCHASE ORDER DATE: 3/14/2011
ACCOUNT NUMBER: 5672-1921-01
SCHEDULE: 3789-90
REVISION: 1

CHARGE ADDRESS

SHIP TO

JOHNSTOWN WIRE TECHNOLOGIES
124 LAUREL AVE
JOHNSTOWN, PA 15906

JOHNSTOWN WIRE TECHNOLOGIES
EDWARD ZAPOLA
C/O C & EL RAILROAD
TRACK 629
JOHNSTOWN, PA 15901

MATERIAL DESCRIPTION

HOT ROLLED STEEL COILS ALLOY AMS 2301K JOHNSTOWN WIRE SPEC RW-100 REVISION DTD 04/21/04 EXC PARA
10.3 AMS 6322N EXC HARD JOHNSTOWN WIRE SPEC RW-005 REVISION DTD 12/31/00 EXC SURFACE DEFECTS
JOHNSTOWN WIRE SPEC PART NO. FXT40AA REVISION DTD 12/31/00 MIL S 6049A & AMD 1 COND B-1 EXC MARK &
UT WAIVED EF-AISI-8740-H FINE GRAIN VACUUM DEGAUSSED AIRCRAFT QUALITY FIXED PRACTICE QUALITY
RESTRICTED CHEMISTRY RESTRICTED MAX INCIDENTAL ELEMENTS
SIZE: RDS .3750 DIAM X COIL
RDS 9.5250MM DIAM X COIL

LADLE CHEMISTRY %

C	MN	P	S	SI	CU	NI	CR
0.42	0.88	0.006	0.011	0.25	0.08	0.42	0.49
V	MO	SN	AL	B	CB	N	
0.002	0.21	0.007	0.035	0.0001	0.001	0.0069	

CALCULATED TESTS

REDUCTION RATIO 1,177.6 TO 1

AUSTENITIC GRAIN SIZE 5 OR FINER BASED ON A TOTAL ALUMINUM CONTENT EQUAL TO OR GREATER THAN .020% PER
ASTM A29.

SEMI - FINISHED RESULTS

JOMINY HARDNESS TEST SAE J406/ASTM A255
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 18 20 22 24 26 28 30 32
58 58 57 56 55 54 53 50 47 43 35 40 38 36 35 34 32 32 31 30 29 29 28 28

MACRO ETCH TEST ASTM E381/MIL STD 430
ETCHANT: HCL TEMPERATURE: 170
S R C
AVG 1 1 1

MAGNETIC PARTICLE TEST AMS 2301 AMS2304 AMS2300
IND AVG IND AVG
FREQ FREQ SEV SEV
PCE 03 0 0 0 0

FINISHED SIZE RESULTS

DECARBURIZATION TEST SAE J419/ASTM E1077/JIS G0558
ETCHANT = NITAL MAGNIFICATION = 100X

	SPIKE	COMPLETE	TOTAL
	INCHES	INCHES	DEPTH
			INCHES
PCE 6769	0.002	0	0.001

G. KRUTH
DIRECTOR QUALITY ASSURANCE

BY HILDA BEGUE

MT Kruth



1807 EAST 28TH ST.
PHONE: 330-438-5694

LORAIN, OH 44055
FAX: 330-438-5695

CERTIFICATE OF TESTS

REPUBLIC ENGINEERED PRODUCTS

May 16, 2011
PAGE 2

OF 2

PURCHASE ORD: 80355
PART NUMBER: FXT40AA-.375
ORDER NUMBER: 1481447 - 01
HEAT: 8097603

PURCHASE ORDER DATE: 3/14/2011
ACCOUNT NUMBER: 5672-1921-01
SCHEDULE: 3789-90
REVISION: 1

CAPABLE OF SEAM DEPTH 1 $\frac{1}{2}$ MAX DIAMETER NOT LESS THAN .005 MAX

NOTES

CHEMICAL ANALYSIS CONFORMS TO APPLICABLE SPECS: ASTM E415, LBL10129, LBL10130, ASTM E1019, LBL10158, LBL10114, AND ASTM E1085, LBL10184, LBL10188.

REPUBLIC ENGINEERED PRODUCTS HEREBY CERTIFY THAT THE MATERIAL LISTED HEREIN HAS BEEN INSPECTED AND

NOTES (CONTINUED)

TESTED IN ACCORDANCE WITH THE METHODS PRESCRIBED IN THE GOVERNING SPECIFICATIONS AND BASED UPON THE RESULTS OF SUCH INSPECTION AND TESTING HAS BEEN APPROVED FOR CONFORMANCE TO THE SPECIFICATIONS.

CERTIFICATE OF TESTS SHALL NOT BE REPRODUCED EXCEPT IN FULL.

ALL TESTING HAS BEEN PERFORMED USING THE CURRENT REVISION OF THE TESTING SPECIFICATIONS.

RECORDING OF FALSE, FICTITIOUS OR FRAUDULENT STATEMENTS OR ENTRIES ON THIS DOCUMENT MAY BE PUNISHED AS A FELONY UNDER FED STATUTES TITLE 18 CHAPTER 47.

THE MATERIAL WAS NOT EXPOSED TO MERCURY OR ANY METAL ALLOY THAT IS LIQUID AT AMBIENT TEMPERATURE DURING PROCESSING OR WHILE IN OUR POSSESSION.

NO WELD OR WELD REPAIR WAS PERFORMED ON THIS MATERIAL.

THE RESULTS REPORTED RELATE ONLY TO THE ITEMS TESTED

SOURCE INFORMATION

MELT SOURCE: CANTON CAST ROLL MELT COUNTRY: U.S.A HOT ROLL SOURCE: LORAIN 9/10, U.S.A
MELT METHOD: BF BLOOM RED. RATIO: 1177.6

END OF DATA CC

END OF DATA

WITH SHIPMENT 1 COPY PRINTED AT SHIPPING AREA
FAX SHIP TO 1 COPY ATTENTION EDWARD ZAPOLA 1-814-532-5684
FILE 1 COPY

G. KRUTH
DIRECTOR QUALITY ASSURANCE

BY HILDA BEGUE



P.O. Box 025263, Miami, FL 33102-5263 • Tel: 305.925.2600 • Fax: 305.507.7191
Plant Location: 10000 N.W. 15th Terrace, Miami, FL 33172 • SITA: MIAMMCR
www.KLXAerospace.com

Shipped From: 10000 NW 15 TERRACE, MIAMI, FL 33172


Material Certification

The items set forth on the purchase order referred to below have been visually inspected and the dimensions thereof have been measured by us, and based on the aforesaid, as well as the representation made to us by the manufacturers of the items subject of such purchase order, we hereby certify that such items are in conformity with all current governmental and manufacturer's requirements, specifications, drawings, and conform to the purchase order requirements. Said items are in new condition and have not been obtained from any U.S. Government or Military source and are traceable to KLX Aerospace Solutions.

FIRM: DART AEROSPACE LTD

PURCHASE ORDER#: PO28796

LNE#	QUANTITY	U/M	PART-NUMBER	CUST REF#	LOT-NUMBER	MANUFACTURER	CCODE	MFR DATE	EXP DATE
16	500	EA	NAS1149P0432P		Y1527	ANILLO INDUSTRIES	10630		


Jason Lewis
Senior Director, Global Quality

06/12/15

Inv # 06/12/15

ANILLO Industries, Inc.

2090 NORTH GLASSELL STREET, ORANGE, CA 92865-3391 USA
PLEASE REMIT TO
P.O. BOX 5586 ORANGE, CA 92863-5586 USA
(714)637-7000 (562)924-6632 FAX(714) 637-3022

AS9100
HARCAP CERT
ISO 9001
CERTIFIED

569544**Packing List &
Certification**

WE ACCEPT
VISA/MASTER/DISCOVER/AMEX

SOLD TO B/E AEROSPACE, INC. ATTN: ACCOUNTS PAYABLE DEPT. 10000 NW 15TH TERRACE MIAMI, FL 33172	1165	SHIP TO B/E AEROSPACE, INC. CONSUMABLES MANAGEMENT 9835 NW 14TH ST MIAMI, FL 33172	E
---	-------------	---	----------

DATE ORDER REC'D 12/07/2011	ORDER NUMBER 1A1351	INVOICE DATE	SHIPPED VIA FEDXG 033101490	TERMS 1% 10 DAYS, NET 30
ITEM	ORDERED	SHIPPED	DESCRIPTION	NET WEIGHT

1	6,670,018	NAS1149F0432P	REV 5 / LOT#Y1527 / MIN/MAX / QCR: 1,4,6,8,15,16/AN980-416L ECCN: 9A991 Schedule B#: 7318.22.0000 COO: USNLR	
---	-----------	----------------------	---	--

We certify that: 1. item number 1 above is manufactured in accordance with the material and processing specifications of this order.
2. We certify that the material on this order conforms in all respects to the current applicable government and/or manufacturer's specification. Test reports are on file and are available for examination on all Anillo manufactured parts. All claims for errors or shortages must be made within 10 days after receipt of goods.
No good to be returned without written authorization. All claims for defective material must filed within 30 days of shipment to receive consideration. We do not assume financial responsibility or liability from the use of products sold, other than the replacement value of the products sold, if claimed within the specified time limit above.

<< R.M.A.# REQUIRED FOR RETURNS >>

<< TO THE BEST OF OUR KNOWLEDGE, PARTS ARE MERCURY FREE >>

Certification

B/E Aerospace, Inc.
Consumable Management
Self Release

Signature & Stamp: *Ben Omidwar*Date: 7-3-14

BY *Ben Omidwar*
Ben Omidwar, Quality Assurance Manager

FI 4.03.05



P.O. Box 025263, Miami, FL 33102-5263 • Tel: 305.925.2600 • Fax: 305.507.7191
Plant Location: 10000 N.W. 15th Terrace, Miami, FL 33172 • SITA: MIAMMCR
www.KLXaerospace.com

Shipped From: 10000 NW 15 TERRACE, MIAMI, FL 33172


Material Certification

The items set forth on the purchase order referred to below have been visually inspected and the dimensions thereof have been measured by us, and based on the aforesaid, as well as the representation made to us by the manufacturers of the items subject of such purchase order, we hereby certify that such items are in conformity with all current governmental and manufacturer's requirements, specifications, drawings, and conform to the purchase order requirements. Said items are in new condition and have not been obtained from any U.S. Government or Military source and are traceable to KLX Aerospace Solutions.

FIRM: DART AEROSPACE LTD

PURCHASE ORDER#: PO28796

LNE#	QUANTITY	U/M	PART-NUMBER	CUST REF#	LOT-NUMBER	MANUFACTURER	CCODE	MFR DATE	EXP DATE
8	30	EA	AN4C11A		68533	MAC FASTENERS	0RPT4		


Jason Lewis
Senior Director, Global Quality

06/12/15

Inv # 06/12/15

MAC FASTENERS, INC.
1110 ENTERPRISE
OTTAWA, KANSAS 66067

**CERTIFICATE OF CONFORMANCE
AND
MANUFACTURER'S AFFIDAVIT**

CUSTOMER: B/E AEROSPACE

PO: 0REV54

PART NUMBER: AN4C11A

REV: 3

LOT NUMBER: 68533

MANUFACTURED QUANTITY: 24,000

MILL HEAT NUMBER: 571573

COUNTRY OF ORIGIN: UNITED STATES OF AMERICA

DFARS 252.225.7009 Compliant

MERCURY FREE CERTIFICATION

MacFasteners certifies that the parts referenced in the above lot number do not contain Mercury or Mercury compounds, and were manufactured in a Mercury free environment.

We certify that the parts furnished against the above referenced purchase order were manufactured by MAC FASTENERS within the United States, and were processed in accordance with all applicable drawings and specifications. Objective evidence of compliance is on file, subject to examination upon request.

Mac Fasteners is an AS9100C Registered Company - SAI GLOBAL - 0058029
Mac Fasteners is a DISC QSLM approved Manufacturer - CAGE Code 0RFT4
Mac Fasteners is an Airbus approved Supplier - 203399

DATE: 09/26/14


QUALITY ASSURANCE REPRESENTATIVE

MAC FASTENERS, INC.
1110 EAST ENTERPRISE
OTTAWA, KS 66067

CHEMICAL & PHYSICAL TEST REPORT

CUSTOMER B/E AEROSPACE	PO NUMBER OREV54	MFG QUANTITY 24,000	DATE 09/26/14
PART NUMBER AN4C11A	REV 3	LOT NO 68533	PROCUREMENT SPEC NASM6812

MATERIAL TYPE 431				MATERIAL SPECIFICATION ASTM A493				MILL HEAT NUMBER 571573			SUPPLIER CARPENTER		
C	Si	Mn	P	S	Cu	Ni	Cr	Mo	V	B	Fe	Al	Ti
.16	.53	.63	.016	.002		1.55	16.1						
	Co	N	Bi	Pb	Mg	Zn		Nb	Sn			Other	

MECHANICAL TEST RESULTS - TESTING PER NASM1312

ULTIMATE TENSILE STRENGTH POUNDS	
6,400	
6,290	
6,330	
6,340	
6,400	
MIN. REQ.	4,080

DOUBLE SHEAR STRENGTH POUNDS / PSI	
8,540	
8,380	
8,510	
8,390	
8,410	
MIN. REQ.	7,360

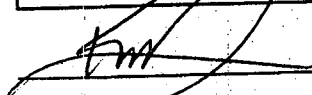
HARDNESS	
ROCKWELL "C" SCALE	
REQ.	26 - 32 HRC
SAMPLE SIZE	5
ACTUAL RESULTS	
29 - 31 HRC	

METALLURGICAL EXAMINATION			
Discontinuities	<input checked="" type="checkbox"/>	Carb/Decarb	<input checked="" type="checkbox"/>
Grain Flow	<input checked="" type="checkbox"/>	Microstructure	<input checked="" type="checkbox"/>
Grain Size	<input checked="" type="checkbox"/>	Appearance	<input checked="" type="checkbox"/>
Thread Inspection FED-STD-H28/20 - ASME B1.3		System <input type="checkbox"/> 21	System <input checked="" type="checkbox"/> 22
			System <input type="checkbox"/> 23

NDT/ ADDITIONAL TESTS	
Magnetic Particle Inspection per ASTM E1444	<input checked="" type="checkbox"/>
Liquid Penetrant Inspection per ASTM E1417	<input type="checkbox"/>
Head Marking	<input checked="" type="checkbox"/>
Fatigue Strength	<input type="checkbox"/>
Stress Durability Test NASM1312/5	<input type="checkbox"/>
Stress Rupture Test	<input type="checkbox"/>
Magnetic Permeability ASTM A342 Less than 200	<input type="checkbox"/>

TEST CERTIFICATION

WE CERTIFY THAT THE PART NUMBER, LOT NUMBER, AND SAMPLES REFERENCED ABOVE HAVE BEEN TESTED IN ACCORDANCE WITH THE APPLICABLE SPECIFICATION FOR THE TESTS REPORTED HEREIN. THIS CERTIFICATION SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE APPROVAL OF MAC FASTENERS, INC.


Quality Assurance Representative

CERTIFICATE OF TESTS
CERT SERIAL# 000936670

ABNAHMEPRUEFZEUGNIS

CERTIFICAT DE CONTROLE



CARPENTER

Carpenter Technology Corporation
101 West Bern Street, Reading, Pa. 19601
Tel: (610) 208-2000 (800) 338-4592

- THE RECORDING OF FALSE, FICTITIOUS OR FRAUDULENT STATEMENTS OR ENTRIES ON THIS DOCUMENT MAY BE PUNISHED AS A FELONY UNDER FEDERAL STATUTES INCLUDING FEDERAL LAW, TITLE 18, CHAPTER 47.
- THE VALUES AND OTHER TECHNICAL DATA REPRESENT THE RESULTS OF ANALYSES AND TESTS MADE ON SAMPLES COLLECTED FROM THE TOTAL LOT. ORIGINAL DATA RECORDS CAN BE TRACED BY REFERENCE TO THE CARPENTER ORDER NUMBER.
- MATERIAL IS MANUFACTURED FREE FROM MERCURY, RADIUM, ALPHA AND GAMMA SOURCE CONTAMINATION.
- THIS DOCUMENT SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE WRITTEN CONSENT OF CARPENTER TECHNOLOGY CORPORATION.

07/09/14

CUSTOMER/BESTELLER/CLIENT

SELLER/VERKÄUFER/VENDEUR PAGE 1 OF 1

MAC FASTENERS INC

1110 E. ENTERPRISE
OTTAWA KS 66067

BOL

CUSTOMER ORDER NO./BESTELL-NR./N° DE COMMANDE	CARPENTER NO./WERKS-NR./N° DE REFERENCE INTERNE	DATE/DATUM/DATE	WEIGHT/GEWICHT/POIDS
92916	W94092	07/09/14	6624.000

HEAT NUMBER / SCHMELZE-NR. / N° DE COULEE: 571573

PRODUCT DESCRIPTION: TYPE 431 ANNEALED COLD FINISH SEAM FREE C HDG SC2 STRAND

CU/SOAP TENSILE MAX 115.0 KSI AIM: MIN 100.0 MAX 110.0
PART NUMBER: 431-.247

SPECIFICATION: ASTM-A493-09 (REAPPROVED 2013)

SIZE 0.247000 IN. (6.27 MM) RD WIRE

PRIMARY HEAT CHEMISTRY(WT%): (TEST METHOD IS SHOWN IN PARENTHESIS)

C (COM)	MN(XRF)	SI(XRF)	P (XRF)	S (COM)	CR(XRF)
0.16	0.63	0.53	0.016	0.002	16.1

NI(XRF)
1.55

THIS HEAT MELTED BY THE ELECTRIC ARC/AOD PROCESSES

TENSILE AS SHIPPED, KSI(MPA) 99.0(683)

MATERIAL HAS BEEN MELTED AND MANUFACTURED IN THE USA WHICH IS A QUALIFYING COUNTRY TO DFARS REQUIREMENTS 252.225-7014 WITH ALTERNATE 1 FOR QUALIFYING COUNTRY 225.872.1, SUPERSEDED BY DFARS REQUIREMENTS DFARS 252.225-7008 AND 252.225-7009.

THIS ORDER WAS MANUFACTURED IN ACCORDANCE WITH CARPENTER SPECIALTY ALLOYS OPERATIONS QUALITY PROGRAM MANUAL, REVISION 31 DATED 09/03/13.

CARPENTER'S QUALITY MANAGEMENT SYSTEM WAS REGISTERED AS OF NOVEMBER 24, 2013 TO THE REQUIREMENTS OF ISO 9001:2008 APPROVAL CERTIFICATE 13-1996R BY PERFORMANCE REVIEW INSTITUTE. THIS CERTIFICATE OF TEST IS TYPE 3.1 PREPARED IN ACCORDANCE WITH EN 10204 (DIN 50049). WE HEREBY CERTIFY THAT THE ABOVE TEST DATA ARE IN ACCORDANCE WITH THE PURCHASE ORDER AND SPECIFICATION REQUIREMENTS, AS DOCUMENTED IN THIS CERTIFICATE OF TESTS.

TEST METHODS ARE PER THE ASTM STANDARDS ON FILE AND IN EFFECT AT TIME OF ORDER ACCEPTANCE, STANDARD PRACTICES, OR AS AGREED UPON BETWEEN CARPENTER & CUSTOMER.

GARY BROWN
MANAGER - SPECIFICATIONS/CERTIFICATIONS
CARPENTER TECHNOLOGY CORPORATION

Gary Brown

This certification is made to the customer printed on this form. Carpenter neither makes, nor assumes responsibility for, any representation or certification to other parties.
Die vorliegende Zertifizierung ist nur für den in diesem Formular genannten Kunden gültig. Carpenter übernimmt gegenüber Dritten keinerlei Haftung für die ausgewiesenen Daten oder Zertifizierungen.
Ce certificat est uniquement valable pour le client dont le nom est imprimé sur ce formulaire. Carpenter n'assume pas de responsabilité pour une certification vis-à-vis d'une tierce personne.

Paulo Products Co Heat Treat Certification

PART NUMBER	PO #	LOT/ JOB #	QTY	NET WT	MTL	HRC # OF PAULO			RESULTS	EQUIP/ CYCLE ID	*AUSTENTIZE*	EQUIP ID	*TEMPER*
						REQ'D	SAMP	ORDER #			TEMP/ TIME		TEMP/ TIME
AN4C11A	103879	68533	20,000	303.4	431	26-32	8	1274459-01	29-31 HRC	1205/175270-1	1875±25°/50min	1233	1175±15°/4hrs10min
AN4C12A	104103	73242	12,000	249.2	431	26-32	8	1275654-01	29-31 HRC	1205/175270-1	1875±25°/50min	1233	1175±15°/4hrs10min

CERTIFICATION

WE CERTIFY THAT THE ABOVE REFERENCED PARTS WERE TREATED IN ACCORDANCE WITH MAC FASTENERS PS-1001, REV APRIL 2006. THE SAMPLES HAVE BEEN TESTED TO VERIFY HARDNESS PER CUSTOMER REQUIREMENTS. PAULO PRODUCTS, INC IS NADCAP CERTIFIED.

_mac_nadcap_cert_log_ps1001

INSPECTOR

APPROVED BY

Results: ** denotes (Customer Accepted AS-IS - Deviation on File)

DATE 9-17-14

DE TRAY Plating Works

Specialized Electro-Plating and Polishing
Nickel
Copper
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Satin Chrome
Zinc
Cadmium
Passivate
Bright Dip
Strip Copper
Descale

10405 EAST ELEVENTH STREET • INDEPENDENCE, MISSOURI 64052
Phone (816) 252-8411 Fax (816) 252-8527 • E-mail : DeTrayPlating@Aol.com

Passivate Treatment per AMS2700 Method 1, Class 4

CUSTOMER: Mac Fasteners Lot#: 68533
PART NUMBER: AN4C11A
PROCUREMENT SPECIFICATION: n/a
OTHER CONTRACTURAL REQUIREMENTS:
MATERIAL: 431
QUANTITY: 304 lbs
INVOICE NUMBER: 183498

Certification Statement:

We certify that the above referenced lot was processed, tested, and inspected in accordance with AMS2700 Method 1, Class 4 and part standard.

DE TRAY PLATING WORKS

NAME: 

JOB TITLE: VICE-PRESIDENT

DATE: 9/24/2014



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Remit to Address: 88289 Expedite Way, Chicago, IL 60695-0001

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ORDER NO.		DATE	SHIP VIA		TERMS		SHIPPING TERMS	
PO28796		06/12/15	FEDX INTL P1 COLL		NET 45		FOB-MIAMI	
ITEM NO.	QUANTITY ORDERED	PART NUMBER AND DESCRIPTION	PRICE	UNIT	BACK ORDER	SHIPPED	AMOUNT	
2	1200	AN3C4A TARIFF: 7318.15.8085 Description BOLT ECCN :9A991 MFR: MAC FASTENERS CTRL#: 2015E24561 LOT#: 72257 LOT QTY: 1200 Country of Origin USA	0.250	EA	0	1200	300.00	
3	300	AN4-13A TARIFF: 7318.15.8085 Description BOLT ECCN :9A991 MFR: AIRFASCO INDUSTRIES CTRL#: 2007C05203 LOT#: 14073 LOT QTY: 300 Country of Origin USA	0.220	EA	0	300	66.00	
4	200	AN4-15A TARIFF: 7318.15.8085 Description BOLT ECCN :9A991 MFR: MAC FASTENERS CTRL#: 2014E13592 LOT#: 68551 LOT QTY: 200 Country of Origin USA	0.250	EA	0	200	50.00	
5	50	AN4-17A TARIFF: 7318.15.8085 Description BOLT	0.300	EA	0	50	15.00	
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ORDER NO.		DATE	SHIP VIA	TERMS		SHIPPING TERMS	
PO28796		06/12/15	FEDX INTL P1 COLL	NET 45		FOB-MIAMI	
ITEM NO.	QUANTITY ORDERED	PART NUMBER AND DESCRIPTION	PRICE	UNIT	BACK ORDER	SHIPPED	AMOUNT
6	40	ECCN :9A991 MFR: MAC FASTENERS CTRL#: 2015B05367 LOT#: 71246 LOT QTY: 50 Country of Origin USA AN4-42A TARIFF: 7318.15.8085 Description BOLT ECCN :9A991 MFR: MAC FASTENERS CTRL#: 2015E06241 LOT#: 73798 LOT QTY: 40 Country of Origin USA	1.150	EA	0	40 ✓	46.00
7	75	AN4-51A TARIFF: 7318.15.8085 Description BOLT ECCN :9A991 MFR: AIRFASCO INDUSTRIES CTRL#: 2008G05324 LOT#: 14474 LOT QTY: 75 Country of Origin USA	3.480	EA	0	75 ✓	261.00
8	30	AN4C11A TARIFF: 7318.15.8085 Description BOLT ECCN :9A991 MFR: MAC FASTENERS CTRL#: 2014J02404	0.800	EA	0	30 ✓	24.00
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ORDER NO.		DATE	SHIP VIA		TERMS		SHIPPING TERMS	
PO28796		06/12/15	FEDX INTL P1 COLL		NET 45		FOB-MIAMI	
ITEM NO.	QUANTITY ORDERED	PART NUMBER AND DESCRIPTION	PRICE	UNIT	BACK ORDER	SHIPPED	AMOUNT	
10	25	LOT#: 68533 LOT QTY: 30 Country of Origin USA AN5-34A TARIFF: 7318.15.8085 Description BOLT ECCN :9A991 MFR: MAC FASTENERS CTRL#: 2012J01246 LOT#: 59085 LOT QTY: 25 Country of Origin USA	0.970	EA	0	25	24.25	
11	50	AN5-36A TARIFF: 7318.15.8085 Description BOLT ECCN :9A991 MFR: AIRFASCO INDUSTRIES CTRL#: 2013D06327 LOT#: 12282 LOT QTY: 50 Country of Origin USA	0.970	EA	0	50	48.50	
12	500	MS20600AD4W4 TARIFF: 7616.10.3000 Description RIVET, BLIND ECCN :9A991 MFR: CHERRY AEROSPACE SANTA AN CTRL#: 2015B13241 LOT#: 88019555 LOT QTY: 500 Country of Origin USA	0.190	EA	0	500	95.00	

2015-06-17

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ORDER NO.		DATE	SHIP VIA	TERMS		SHIPPING TERMS	
PO28796		06/12/15	FEDX INTL P1 COLL	NET 45		FOB-MIAMI	
ITEM NO.	QUANTITY ORDERED	PART NUMBER AND DESCRIPTION	PRICE	UNIT	BACK ORDER	SHIPPED	AMOUNT
13	100	MS20601AD4W3 TARIFF: 7616.10.3000 Description RIVET, BLIND ECCN :9A991 MFR: CHERRY AEROSPACE SANTA AN CTRL#: 2015A08001 LOT#: 87971282 LOT QTY: 100 Country of Origin USA	0.220	EA	0	100	22.00
14	400	MS21043-3 TARIFF: 7318.16.0085 Description NUT, SELF-LOCKING ECCN :9A991.d MFR: ALCOA KAYNAR FULLERTON CTRL#: 2013K14154 LOT#: M022516-000 LOT QTY: 400 Country of Origin MEXICO	0.390	EA	0	400	156.00
15	100	MS27039-4-20 TARIFF: 7318.15.6080 Description SCREW ECCN :9A991 MFR: MAC FASTENERS CTRL#: 2008A02757 LOT#: 37548 LOT QTY: 100 Country of Origin USA	0.190	EA	0	100	19.00
16	500	NAS1149F0432P TARIFF: 7616.10.9090 Description WASHER, FLAT	0.030	EA	0	500	15.00

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CANADA K6A 1K7

ORDER NO. PO28796		DATE 06/12/15	SHIP VIA FEDX INTL P1 COLL		TERMS NET 45	SHIPPING TERMS FOB-MIAMI		
ITEM NO.	QUANTITY ORDERED	PART NUMBER AND DESCRIPTION		PRICE	UNIT	BACK ORDER	SHIPPED	AMOUNT
		ECCN :9A991 MFR: ANILLO INDUSTRIES CTRL#: 2014G13621 LOT#: Y1527 LQT QTY: 500 Country of Origin USA These commodities, technology or software were exported from the United States in accordance with the Export Administration Regulations. Diversion contrary to U.S. law is prohibited. *** SHIPPED 2 CTNS *** # 1=CTN 40# 0 OZ. 642617484215 # 2=CTN 8# 0 OZ. 642617484226 FREIGHT ACCT# 15179324-0						
INVOICE#.....		J054YZ						
ORDER#.....		9R3HP7						
CONSOLIDATE#..		1BJB85						

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ORDER NO. See Below		DATE 06/12/2015	SHIP VIA FEDX INTL P1 COLL		TERMS NET 45		SHIPPING TERMS FOB-MIAMI	
ITEM NO.	QUANTITY ORDERED	PART NUMBER AND DESCRIPTION		PRICE	UNIT	BACK ORDER	SHIPPED	AMOUNT
1 								

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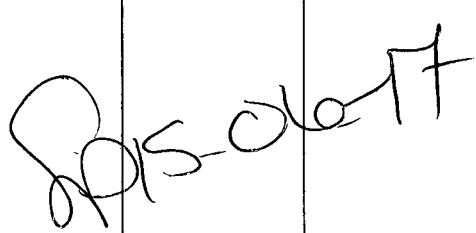
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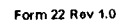
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8015-00-17



CONTINUATION SHEET
FEUILLE SUPPLÉMENTAIRE

1. Vendor (Name only)/Vendeur (Nom seulement) KLX Inc.		2. Other References (include Purchaser's Order No.) Autres références (inclure le n° de commande de l'acheteur) PO#: PO28796		
3. Consignee (Name only)/Destinataire (Nom seulement) DART AEROSPACE LTD				
4. Purchaser if other than Consignee and/or Importer (Name only) Acheteur, s'il diffère du destinataire et (ou) de l'importateur (Nom seulement) DART AEROSPACE LTD				
5. No. of Pkgs Nbre de colis	6. Specification of Commodities (Kind of Packages, Marks and Numbers, General Description and Characteristics, i.e. Grade, Quality) Désignation des articles (Nature des colis, marques et numéros, description générale et caractéristiques, p. ex. classe, qualité)	13. Quantity (State Unit) Quantité (Préciser l'unité)	14. Unit Price Prix unitaire	15. Total
	PO#: PO28796 Invoice#: J054YZ			
	AN4-42A BOLT	40	1.150 /EA	46.00
	AN4C11A BOLT	30	0.800 /EA	24.00
	AN5-34A BOLT	25	0.970 /EA	24.25
	MS20601AD4W3 RIVET, BLIND	100	0.220 /EA	22.00
	NAS1149F0432P WASHER, FLAT	500	0.030 /EA	15.00
				
U.S. Currency				



Form 22 Rev 1.0



P.O. Box 025263, Miami, FL 33102-5263 • Tel: 305.925.2600 • Fax: 305.507.7191
Plant Location: 10000 N.W. 15th Terrace, Miami, FL 33172 • SITA: MIAMMCR
www.KLXAerospace.com

Shipped From: 650 LONGBEACH BLVD, STRATFORD, CT 06615


Material Certification

The items set forth on the purchase order referred to below have been visually inspected and the dimensions thereof have been measured by us, and based on the aforesaid, as well as the representation made to us by the manufacturers of the items subject of such purchase order, we hereby certify that such items are in conformity with all current governmental and manufacturer's requirements, specifications, drawings, and conform to the purchase order requirements. Said items are in new condition and have not been obtained from any U.S. Government or Military source and are traceable to KLX Aerospace Solutions.

FIRM: DART AEROSPACE LTD

PURCHASE ORDER#: PO28796

LNE#	QUANTITY	U/M	PART-NUMBER	CUST REF#	LOT-NUMBER	MANUFACTURER	CCODE	MFR DATE	EXP DATE
9	50	EA	AN5-11A		54242	MAC FASTENERS	0RFT4		



Jason Lewis
Senior Director, Global Quality

06/12/15

Inv #J058JT 06/12/15

**MACFASTENERS, INC.**

1110 Enterprise Street
Ottawa, KS 66067
Phone: 785-242-8812
Fax: 785-242-4616

Packing List

Bill B/E AEROSPACE CONSUMABLES MGMT
To: 10000 NW 15TH TERRACE
MIAMI, FL 33172

Ship B/E AEROSPACE CONSUMABLES MGMT
To: 9835 NW 14th Street
Miami, FL 33172
United States

Shipment No: 49262
Shipment Date: 06/08/11
Ship Via: United Parcel Service
Order Number: 40952
Order Date: 02/02/11

Customer Code: BE AEROSPACE
Phone: (305) 925-2600
PO Number: OVX858
Terms: Net 30 Days

LOT #54242

<u>Item</u>	<u>Quantity</u>				<u>Unit</u>	<u>Description</u>	<u>Revision</u>	<u>Job Number</u>
	<u>Open</u>	<u>Shipped</u>	<u>Back Ord</u>	<u>Canceled</u>				
1	15,000	18,000	0	0	M	AN5-11A Bolt, machine-- Aircraft	2	54242

MAC FASTENERS, INC.
1110 ENTERPRISE
OTTAWA, KANSAS 66067

**CERTIFICATE OF CONFORMANCE
AND
MANUFACTURER'S AFFIDAVIT**

CUSTOMER: B/E AEROSPACE

PO: OVX858

PART NUMBER: AN5-11A

REV: 2

LOT NUMBER: 54242

MANUFACTURED QUANTITY: 18,000

MILL HEAT NUMBER: 8094658

COUNTRY OF ORIGIN: UNITED STATES OF AMERICA

DFARS 252.225-7014, ALTERNATE 1 COMPLIANT

MERCURY FREE CERTIFICATION

MacFasteners Inc. certifies that the parts referenced in the above lot number do not contain Mercury or Mercury compounds, and were manufactured in a Mercury free environment.

We certify that the parts furnished against the above referenced purchase order were manufactured by MAC FASTENERS, INC. within the United States, and were processed in accordance with all applicable drawings and specifications.

Objective evidence of compliance is on file, subject to examination upon request.

DATE: 06/08/11



QUALITY ASSURANCE REPRESENTATIVE

MacFasteners, Inc. is an AS9100/ISO9001 Registered Company - PJR# C2009-00297



MACFASTENERS, INC.

1110 Enterprise Street
Ottawa, KS 66067
Phone: 785-242-8812
Fax: 785-242-4616

Packing List

Bill B/E AEROSPACE CONSUMABLES MGMT
To: 10000 NW 15TH TERRACE
MIAMI, FL 33172

Ship B/E AEROSPACE CONSUMABLES MGMT
To: 9835 NW 14th Street
Miami, FL 33172
United States

Shipment No: 49262
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Phone: (305) 925-2600
PO Number: OVX858
Terms: Net 30 Days

LOT #54242

Item	Quantity				Unit	Description	Revision	Job Number
	Open	Shipped	Back Ord	Canceled				
1	15,000	18,000	0	0	M	AN5-11A Bolt, machine-- Aircraft	2	54242

SIKORSKY
1758
DQR

9/26/13

SEP 26 2013

MAC FASTENERS, INC.
1110 ENTERPRISE
OTTAWA, KANSAS 66067

**CERTIFICATE OF CONFORMANCE
AND
MANUFACTURER'S AFFIDAVIT**

CUSTOMER: B/E AEROSPACE

PO: OVX858 ✓

PART NUMBER: AN5-11A

REV: 2

LOT NUMBER: 54242 ✓

MANUFACTURED QUANTITY: 18,000

MILL HEAT NUMBER: 8094658

COUNTRY OF ORIGIN: UNITED STATES OF AMERICA

DFARS 252.225-7014, ALTERNATE 1 COMPLIANT ✓

SIKORSKY
1758
DQR

SEP 26 2013

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Objective evidence of compliance is on file, subject to examination upon request

DATE: 06/08/11 ✓

QUALITY ASSURANCE REPRESENTATIVE

MacFasteners, Inc. is an AS9100/ISO9001 Registered Company - PJR# C2009-00297

MAC FASTENERS, INC.
1110 ENTERPRISE
OTTAWA, KANSAS 66067

HEAT TREAT CERTIFICATION

CUSTOMER: B/E AEROSPACE

DATE: 06/08/11

PO NUMBER: OVX858

MANUFACTURED QUANTITY: 18,000

LOT NUMBER: 54242

MATERIAL: TYPE 8740

PART NUMBER: AN5-11A

REVISION: 2

REQUIRED HARDNESS: 26 - 32 HRC

SAMPLE SIZE: 5

HARDNESS: 27-29 HRC

SIKORSKY
1758
DQR

SEP 26 2013

HEAT TREAT SPECIFICATION AS APPLICABLE: MIL-H-6875/AMS-H-6875/AMS2759/AMS5853/PS-1001

The fasteners referenced in this report have been processed, inspected and certified by the Heat Treat Contractor in accordance with all applicable drawings and specifications. Heat Treatment has been verified in accordance with procurement specification and part drawing, by metallurgical and mechanical testing as applicable. Evidence of compliance as well as certification from the Heat Treat Contractor is on file and subject to examination upon request.


QUALITY ASSURANCE REPRESENTATIVE

MAC FASTENERS, INC.
1110 EAST ENTERPRISE
OTTAWA, KS 66067

CHEMICAL & PHYSICAL TEST REPORT

CUSTOMER B/E AEROSPACE	PO NUMBER OVX858	MFG QUANTITY 18,000	DATE 06/08/11
PART NUMBER AN5-11A	REV 2	LOT NO 54242	PROCUREMENT SPEC NASM6812

MATERIAL TYPE 8740				MATERIAL SPECIFICATION MIL-S-6049/AMS6322				MILL HEAT NUMBER 8094658			SUPPLIER JOHNSTOWN		
C .41	Si .27	Mn .86	P .013	S .012	Cu .09	Ni .45	Cr .49	Mo .21	V .003	B	Fe	Al .026	Ti
	Co	N .0074	Bi	Pb	Mg	Zn		Nb	Sn .005			Other	

MECHANICAL TEST RESULTS - TESTING PER NASM1312

ULTIMATE TENSILE STRENGTH POUNDS
8,500
8,480
8,520
8,500
8,520
MIN. REQ. 6500

DOUBLE SHEAR STRENGTH POUNDS / PSI
12,220
12,240
12,240
12,260
12,240
MIN. REQ. 11500

HARDNESS
ROCKWELL "C" SCALE
REQ. 26 - 32 HRC
SAMPLE SIZE 5
ACTUAL RESULTS 27-29 HRC

METALLURGICAL EXAMINATION			
Discontinuities	<input checked="" type="checkbox"/>	Carb/Decarb	<input checked="" type="checkbox"/>
Grain Flow	<input checked="" type="checkbox"/>	Microstructure	<input checked="" type="checkbox"/>
Grain Size	<input checked="" type="checkbox"/>	Appearance	<input checked="" type="checkbox"/>
Thread Inspection FED-STD-H28/20 - ASME B1.3	System 21 <input type="checkbox"/>	System 22 <input checked="" type="checkbox"/>	System 23 <input type="checkbox"/>

NDT/ ADDITIONAL TESTS
Magnetic Particle Inspection per ASTM E1444 <input checked="" type="checkbox"/>
Liquid Penetrant Inspection per ASTM E1417 <input type="checkbox"/>
Recess Torque Test <input type="checkbox"/>
Head Marking <input checked="" type="checkbox"/>

TEST CERTIFICATION

WE CERTIFY THAT THE PART NUMBER, LOT NUMBER, AND SAMPLES REFERENCED ABOVE HAVE BEEN TESTED IN ACCORDANCE WITH THE APPLICABLE SPECIFICATION FOR THE TESTS REPORTED HEREIN. THIS CERTIFICATION SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE APPROVAL OF MAC FASTENERS, INC.

Quality Assurance Representative

AS9100, ISO9001 REGISTERED
PJR #C2009-00297



Republic

1807 EAST 28TH ST.
PHONE: 330-438-5694

LORAIN, OH 44055
FAX: 330-438-5695

CERTIFICATE OF TESTS

REPUBLIC ENGINEERED PRODUCTS

May 7, 2010
PAGE 1

OF 2

PURCHASE ORD: JY045	PURCHASE ORDER DATE: 1/4/2010
PART NUMBER: FXT40AA-313	ACCOUNT NUMBER: 5672-1920-01
ORDER NUMBER: 1435171 - 01	SCHEDULE: 4864-08
HEAT: 8094658	REVISION: 7

JOHNSTOWN WIRE TECHNOLOGIES
124 LAUREL AVE
JOHNSTOWN, PA 15906

JOHNSTOWN WIRE TECHNOLOGIES
EDWARD ZAPOLA
124 LAUREL AVE
TRUCK STOP 9 ROD DOCK
JOHNSTOWN, PA 15904

MATERIAL DESCRIPTION

HOT ROLLED STEEL COILS ALLOY AMS 2301J JOHNSTOWN WIRE SPEC RW-100 REVISION DTD 04/21/04 EXC PARA 10.3 AMS G322N EXC HARD JOHNSTOWN WIRE SPEC RW-005 REVISION DTD 12/31/00 EXC SURFACE DEFECTS JOHNSTOWN WIRE SPEC PART NO. FXT40AA REVISION DTD 12/31/00 MIL S 6049A & AMD.1 COND B-1 EXC MARK & UP WAIVED EF-AISI-B740-H FINE GRAIN VACUUM DEGAUSSED AIRCRAFT QUALITY FIXED PRACTICE QUALITY RESTRICTED CHEMISTRY RESTRICTED MAX INCIDENTAL ELEMENTS
SIZE: RODS .3130 DIAM X COIL
RDS 7.9502MM DIAM X COIL

LADLE CHEMISTRY %

	MN	P	S	SI	CU	NI	CR
C	0.48	0.013	0.012	0.27	0.09	0.45	0.49
V	MO	SN	AL	B	CB	N	
0.003	0.21	0.005	0.026	0.0000	0.000	0.0074	

CALCULATED TESTS

REDUCTION RATIO 1,690.4 TO 1

AUSTENITIC GRAIN SIZE 5 OR FINER BASED ON A TOTAL ALUMINUM CONTENT EQUAL TO OR GREATER THAN .020% PER ASTM A29.

SEMI - FINISHED RESULTS

JOINTLY HARDNESS TEST SAE J406/ASTM A255
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 18 20 22 24 26 28 30 32
58 58 57 56 55 53 51 48 44 42 39 38 36 35 34 34 32 32 31 30 30 29 29 29

MACRO ETCH TEST ASTM E381/MIL STD 430
ETCHANT: HCL TEMPERATURE: 170
S R C
AVG 1 1 1

MAGNETIC PARTICLE TEST AMS 2301 AMS2304 AMS2300
IND AVG IND AVG
FREQ FREQ SEV SEV
PCB 03 0 0 0 0

FINISHED SIZE RESULTS

DECARBURIZATION TEST SAE J419/ASTM E1077/JIS G0558
ETCHANT = NITAL MAGNIFICATION = 100X

	SPIKE	COMPLETE	TOTAL
	INCHES	INCHES	DEPTH
	INCHES	INCHES	INCHES
PCB 4362	0.004	0	0.003

CAPABLE OF SEAM DEPTH 1% MAX DIAMETER NOT LESS THAN .005 MAX

NOTES

CHEMICAL ANALYSIS CONFORMS TO APPLICABLE SPECS: ASTM E415, LHI.10129, LHI.10130, ASTM E1019,

R. A. SZELIGA
MANAGER TECH. SERVICES

BY HILDA BEGUM

R. A. Szeliga

DE TRAY

Plating Works

Specialized Electro-Plating and Polishing
Nickel
Copper
Decorative Chrome
Satin Chrome
Zinc
Cadmium
Passivate
Bright Dip
Strip Copper
Descale

10406 EAST ELEVENTH STREET • INDEPENDENCE, MISSOURI 64052
Phone (816) 252-8411 Fax (816) 252-8527 • E-mail: DeTrayPlating@Aol.com

June 2, 2011

Mac Fasteners
1110 East Enterprise Street
Ottawa, Kansas 66067

Subject: Certification

This is to certify that the following parts have been electrodeposited cadmium plate per Spec.-QQ-P-416/AMS-QQ-P-416/NAS4160/AMS2400, Type II, Class 2. Please reference our Invoice #152462 dated 06/02/2011 for:

Lot#- 54242

P.N.- AN5-11A

James T. Pierson, Vice-President



DE TRAY PLATING WORKS



Republic

1807 EAST 28TH ST.
PHONE: 330-430-5694

LORAIN, OH 44055
FAX: 330-430-5695

May 7, 2010
PAGE 2

CERTIFICATE OF TESTS

REPUBLIC ENGINEERED PRODUCTS

OF 2

PURCHASE ORD: 3Y045
PART NUMBER: FXT40AA-313
ORDER NUMBER: 1435171 - 01
HEAT: 0094650
LBL10150, LBL10114, AND ASTM E1085, LBL10184, LBL10188.

PURCHASE ORDER DATE: 1/4/2010
ACCOUNT NUMBER: 5672-1920-01
SCHEDULE: 4864-88
REVISION: 1

REPUBLIC ENGINEERED PRODUCTS HEREBY CERTIFY THAT THE MATERIAL LISTED HEREIN HAS BEEN INSPECTED AND

TESTED IN ACCORDANCE WITH THE METHODS PRESCRIBED IN THE GOVERNING SPECIFICATIONS AND BASED UPON THE RESULTS OF SUCH INSPECTION AND TESTING HAS BEEN APPROVED FOR CONFORMANCE TO THE SPECIFICATIONS.

CERTIFICATE OF TESTS SHALL NOT BE REPRODUCED EXCEPT IN FULL.

ALL TESTING HAS BEEN PERFORMED USING THE CURRENT REVISION OF THE TESTING SPECIFICATIONS.

RECORDING OF FALSE, FICTITIOUS OR FRAUDULENT STATEMENTS OR ENTRIES ON THIS DOCUMENT MAY BE PUNISHED AS A FELONY UNDER FED STATUTES TITLE 18 CHAPTER 47.

THE MATERIAL WAS NOT EXPOSED TO MERCURY OR ANY METAL ALLOY THAT IS LIQUID AT AMBIENT TEMPERATURE DURING PROCESSING OR WHILE IN OUR POSSESSION.

NO WELD OR WELD REPAIR WAS PERFORMED ON THIS MATERIAL.

THE RESULTS REPORTED RELATE ONLY TO THE ITEMS TESTED

MELT SOURCE: CANTON CAST ROLL MELT COUNTRY: U.S.A HOT ROLL SOURCE: LORAIN 9/10, U.S.A
MELT METHOD: EP BLOOM RED. RATIO: 1690.4

FAX SHIP TO 1 COPY ATTENTION EDWARD ZAPOLA 1-814-532-5684
WITH SHIPMENT 1 COPY PRINTED AT SHIPPING AREA
FILE 1 COPY

SIKORSKY
1758
DQR

SEP 26 2013

R. A. SZELIGA
MANAGER TECH. SERVICES

R. A. Szeliga

BY NILDA BEQUE



P.O. Box 025263, Miami, FL 33102-5263 • Tel: 305.925.2600 • Fax: 305.507.7191
Plant Location: 10000 N.W. 15th Terrace, Miami, FL 33172 • SITA: MIAMMCR
www.KLXAerospace.com

Shipped From: 650 LONGBEACH BLVD, STRATFORD, CT 06615


Material Certification

The items set forth on the purchase order referred to below have been visually inspected and the dimensions thereof have been measured by us, and based on the aforesaid, as well as the representation made to us by the manufacturers of the items subject of such purchase order, we hereby certify that such items are in conformity with all current governmental and manufacturer's requirements, specifications, drawings, and conform to the purchase order requirements. Said items are in new condition and have not been obtained from any U.S. Government or Military source and are traceable to KLX Aerospace Solutions.

FIRM: DART AEROSPACE LTD

PURCHASE ORDER#: PO28796

LNE#	QUANTITY	U/M	PART-NUMBER	CUST REF#	LOT-NUMBER	MANUFACTURER	CCODE	MFR DATE	EXP DATE
17	20	EA	NAS1329C3KB130		380322	PENN ENG & MFG.	46384		



Jason Lewis
Senior Director, Global Quality

06/12/15

PACKING LIST

ENFASCO INC.

Branch: 000 ENFASCO

1675 Hylton Road

Pennsauken, NJ 08110-1313

US



Pick Ticket Number	
2067582	
Pick Date	Page
4/25/2014 11:15:06	1 of 1
ORDER NUMBER	
1110667	

Bill To:

B/E AEROSPACE INC.

EMAIL INVOICES

cm_payables@beaerospace.com

MIAMI, FL 331025263

US

3059252600

Ship To:

B/E AEROSPACE INC.

650 LONG BEACH BOULEVARD

STRATFORD, CT 06615

US

Ordered By: Mr. JOHN POESCHL

Customer ID: 103199

PO Number		Terms Description		Net Due Date	Disc Due Date	Discount Amount
0TTX30		1% 10 Net 30				
Order Date	Pick Ticket No	Primary Salesrep Name			Taker	
1/16/2014 09:55:37	2067582	HOUSE-H H			TPETRARCA	
Quantities				Item ID	UOM	Unit Size
Ordered	Shipped	Remaining	Disp.	Item Description		

Delivery Instructions: FED EX GRD 0331-0149-0, DO NOT
INSURE, EACH CARTON NOT TO EXCEED
40 LBS

Carrier: FEDERAL EXPRESS GROUND

Tracking #:

2,500

1,171

0

AESS10-KB-130

EA

ATLAS RIVET-NUT

1.0

NAS1329C3-KB-130

SS10-KB-130

Ordered As: NAS1329C3-KB-130

Qty:

1,171 EA

Lot Number: 380322



Clin# 2014D26887
Part#: NA61329C3KB130
Lot#: 380322
PO#: 0TTX30 QTY: 1171

Thank You for your order.

Note: Claims for shortages or a material discrepancy must be made within 30 days after receipt of material. Enfasco's liability is limited to replacing the material or refunding the invoice value of the material sold.

CERTIFICATE OF CONFORMANCE

It is hereby certified that all articles in the above shipments are in conformance with the requirements, specifications and drawings applicable to the above contractor's purchase order. Supporting documentation is available on file for examination.



P.O. Box 025263, Miami, FL 33102-5263 • Tel: 305.925.2600 • Fax: 305.507.7191
Plant Location: 10000 N.W. 15th Terrace, Miami, FL 33172 • SITA: MIAMMCR
www.KLXaerospace.com

Shipped From: 650 LONGBEACH BLVD, STRATFORD, CT 06615


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FIRM: DART AEROSPACE LTD

PURCHASE ORDER#: PO28796

LNE#	QUANTITY	U/M	PART-NUMBER	CUST REF#	LOT-NUMBER	MANUFACTURER	CCODE	MFR DATE	EXP DATE
1	75	EA	AN3-15A		12584	AIRPASCO INDUSTRIES	32958		



Jason Lewis
Senior Director, Global Quality

06/12/15

Inv #J058JR 06/12/15

Airfasco Industries, Inc.

2655 Harrison Ave SW
Canton, OH 44706
Ph: 330-430-6190, Fax: 330-430-6199,

Packing Slip

Invoice #: 95333

Invoice Date: 4/11/2006

Time: 2:56:05 PM

Page: 1

To:

M&M AEROSPACE HARDWARE

PO BOX 025263

MIAMI, FL 33102-5263

USA

Ph: 305-592-5155 Fax: 305-591-8357 PURCHAS

Ship To:

M&M AEROSPACE HARDWARE

10000 NW 15TH TERRACE

MIAMI, FL 33172

Cust. PO#: 0B2894

Terms: NET 60

Ship Via: WATKINS

Ship Via Acc: 018757

Order Date: 12/22/2005

of Items: 1

of Boxes: 45

Weight: 1746

Prepared By:

Sales Order: 78480

Ship Log #: 1

Ship Order:

Customer #: 12726

VAT #:

Cust VAT #:

Ship Date: 4/11/2006

Buyer: JOE GRAY

FOB:

AWB:

Shipment:

Item	Part Number/Description	Shipped	BackOrd	CD		Unit Price	UOM	Total Amt
1	AN3-15A BOLT, AN Loc/Whse: AFC2 Control #: 109584-1 L-12584	100000	0	NE			EA	

C OF C ENCLOSED. THANK YOU

45 BOXES 815/931 LBS 2 PALLETS

CHEM & PHYS L-12584

2 BOXES AN5H10

43 BOXES AN3-15A

SHIPPED WITH INVOICE 95334



P.O. Box 025263, Miami, FL 33102-5263 • Tel: 305.925.2600 • Fax: 305.507.7191
Plant Location: 10000 N.W. 15th Terrace, Miami, FL 33172 • SITA: MIAMMCR
www.KLXAerospace.com

Shipped From: 10000 NW 15 TERRACE, MIAMI, FL 33172


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FIRM: DART AEROSPACE LTD

PURCHASE ORDER#: PO28796

LINE#	QUANTITY	U/M	PART-NUMBER	CUST REF#	LOT-NUMBER	MANUFACTURER	CCODE	MFR DATE	EXP DATE
3	300	EA	AN4-13A		14073	AIRFASCO INDUSTRIES	32958		


Jason Lewis
Senior Director, Global Quality

06/12/15

Inv # 06/12/15

Airfasco Industries, Inc.

2655 Harrison Ave SW
Canton, OH 44706
Ph: 330-430-6190, Fax: 330-430-6199.

Packing Slip

Invoice #: 101013

Invoice Date: 3/15/2007

Time: 12:55:42 PM

Page: 1

To:
M&M AEROSPACE HARDWARE
PO BOX 025263
MIAMI, FL 33102-5263
USA
Ph: 305-592-5155 Fax: 305-591-8357 PURCHAS

Ship To:
M&M AEROSPACE HARDWARE
10000 NW 15TH TERRACE
MIAMI, FL 33172

Cust. PO#: 0AR906

Terms: NET 60

Ship Via: FED EX MOTOR FRESH Ship Via: Acc: 018757

Order Date: 12/4/2006

of Items: 2

of Boxes: 123

Weight: 4789

Prepared By:

Sales Order: 83279

Ship Log #: 1

Ship Order:

Customer #: 12726

VAT #:

Cust VAT #:

Ship Date: 3/15/2007

Buyer: JOE GRAY

FOB:

AWB:

Shipment:

Item	Part Number/Description	Shipped	BackOrd	CD		Unit Price	UOM	Total Amt
1	AN4-13A BOLT, AN Loc/Whse: Control #: 128198-1 L-14165 47 BOXES	70000	0	NE			EA	
2	AN4-13A BOLT, AN Loc/Whse: AFC2 Control #: 7999-2 L-13970 76 BOXES	114000	157000	NE			EA	

C OF C ENCLOSED. THANK YOU
123 BOXES 1054/1060/1052/858/765 LBS 5 PALLETS
TEST REPORT L-14165/14073
MADE IN THE USA



AIRFASCO

INDUSTRIES

MANUFACTURER OF AEROSPACE PRODUCTS

2655 HARRISON AVE. SW
CANTON, OH 44706
PHONE: (330)430-6190
FAX: (330)430-6199

PHYSICAL AND CHEMICAL CERTIFICATION

DATE MFG.: 03/13/07

PART NO.: AN4-13A per NASM4-13A rev. 1

AFC LOT NO.: 14073

QTY MFG.: 117,860

PROCUREMENT SPECIFICATION: Produced per NASM 6812

HEAT TREAT

VENDOR: Brite Metal

CERTIFICATION NO.: B-136326

PROCUREMENT SPECIFICATION: Heat Treat per MIL-H-6875 H

PLATING

VENDOR: Beringer Plating

CERTIFICATION NO.: 43379

PROCUREMENT SPECIFICATION: Cadmium Plate per QQ-P-416, Type II, Class 2, F

MATERIAL

MILL: Ivaco COUNTRY OF MELT: Canada HEAT: A71650

GRADE SPECIFICATION: Alloy Steel per, AMS6300 C, Type 4037, .275"

4037 MATERIAL CHEMISTRY

ELEMENT-ID.	-C-	-MN-	-P-	-S-	-SI-	-NI-	-CR-	-MO-	-CU-	-AL-	Other
LADLE	.380	.820	.009	.002	.240	.030	.040	.210	.090	.023	


PHYSICAL PROPERTIES

PHYSICAL	TENSILE	YIELD	SHEAR	HARDNESS
REQUIRED	4,080 lbs.	3,130 lbs.	3,680 lbs.	HRC 26-32
ACTUAL	5,237 lbs.	4,689 lbs.	4,230 lbs.	HRC 29-31

Non-Destructive Magnetic Particle per ASTM-E-1444-01

We hereby certify that the above data is correct and that the fasteners have been manufactured and inspected in accordance with Airfasco Industries quality requirements.

Airfasco Industries
Quality Assurance Representative:


Wm. Dent



P.O. Box 025263, Miami, FL 33102-5263 • Tel: 305.925.2600 • Fax: 305.507.7191
Plant Location: 10000 N.W. 15th Terrace, Miami, FL 33172 • SITA: MIAMMCR
www.KLXaerospace.com

Shipped From: 10000 NW 15 TERRACE, MIAMI, FL 33172

Material Certification

The items set forth on the purchase order referred to below have been visually inspected and the dimensions thereof have been measured by us, and based on the aforesaid, as well as the representation made to us by the manufacturers of the items subject of such purchase order, we hereby certify that such items are in conformity with all current governmental and manufacturer's requirements, specifications, drawings, and conform to the purchase order requirements. Said items are in new condition and have not been obtained from any U.S. Government or Military source and are traceable to KLX Aerospace Solutions.

FIRM: DART AEROSPACE LTD

PURCHASE ORDER#: P028796

LNE#	QUANTITY	U/M	PART-NUMBER	CUST REF#	LOT-NUMBER	MANUFACTURER	CCODE	MFR DATE	EXP DATE
15	100	EA	MS27039-4-20		37548	MAC FASTENERS	ORPT4		


Jason Lewis
Senior Director, Global Quality

06/12/15

MAC FASTENERS, INC.
1110 ENTERPRISE
OTTAWA, KANSAS 66067

**CERTIFICATE OF CONFORMANCE
AND
MANUFACTURER'S AFFIDAVIT**

CUSTOMER: M & M AEROSPACE

DATE: 01/02/08

PO NUMBER: OAL070

PART NUMBER: MS27039-4-20

REVISION: 1

COUNTRY OF ORIGIN: UNITED STATES OF AMERICA

DFARS 252.225-7014, ALTERNATE 1 COMPLIANT

LOT NUMBER: 37548

MANUFACTURED QUANTITY: 60,000

MILL HEAT NUMBER: 8997268

We certify that the parts furnished against the above referenced purchase order were manufactured by MAC FASTENERS, INC. within the United States, and were processed in conformance with all applicable drawings and specifications.

Objective evidence of compliance is on file, subject to examination upon request.



QUALITY ASSURANCE REPRESENTATIVE

MAC FASTENERS, INC.
1110 EAST ENTERPRISE
OTTAWA, KS 66067

CHEMICAL & PHYSICAL TEST REPORT

CUSTOMER M & M AEROSPACE	PO NUMBER OAL070	MGF QUANTITY 60,000	DATE 01/02/08
PART NUMBER MS27039-4-20	REV 1	LOT NO 37548	PROCUREMENT SPEC NASM7839

MATERIAL TYPE 8740				MATERIAL SPECIFICATION MIL-S-6049/AMS6322				MILL HEAT NUMBER 8997268			SUPPLIER Chicago Wire		
C .41	Si .24	Mn .87	P .005	S .011	Cu .10	Ni .42	Cr .49	Mo .21	V	B	Fe	Al	Ti
	Co	N	Bi	Pb	Mg	Zn		Nb	Sn			Other	

MECHANICAL TEST RESULTS - TESTING PER NASM1312

ULTIMATE TENSILE STRENGTH POUNDS	
5,600	5,580
5,600	5,580
5,580	5,620
5,600	5,580
5,580	5,600
5,580	
5,620	
5,600	
MIN. REQ.	4450

DOUBLE SHEAR STRENGTH POUNDS	
8,160	8,180
8,180	8,200
8,180	8,200
8,160	8,160
8,200	8,160
8,160	
8,160	
8,200	
MIN. REQ.	7360

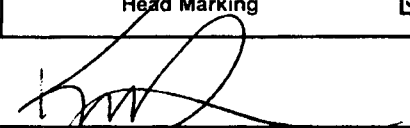
HARDNESS	
ROCKWELL "C" SCALE	
REQ.	26 - 32 HRC
SAMPLE SIZE	13
ACTUAL RESULTS	
28-30 HRC	

METALLURGICAL EXAMINATION			
Discontinuities	<input checked="" type="checkbox"/>	Carb/Decarb	<input checked="" type="checkbox"/>
Grain Flow	<input checked="" type="checkbox"/>	Microstructure	<input checked="" type="checkbox"/>
Grain Size	<input checked="" type="checkbox"/>	Appearance	<input checked="" type="checkbox"/>
Thread Inspection FED-STD-H28/20 - ASTM B1.3	System <input type="checkbox"/> 21	System <input checked="" type="checkbox"/> 22	System <input type="checkbox"/> 23

NDT/ ADDITIONAL TESTS	
Magnetic Particle Inspection per ASTM E1444	<input checked="" type="checkbox"/>
Liquid Penetrant Inspection per ASTM E1417	<input type="checkbox"/>
Recess Torque Test	<input type="checkbox"/>
Head Marking	<input checked="" type="checkbox"/>

TEST CERTIFICATION

WE CERTIFY THAT THE PART NUMBER, LOT NUMBER, AND SAMPLES REFERENCED ABOVE HAVE BEEN TESTED IN ACCORDANCE WITH THE APPLICABLE SPECIFICATION FOR THE TESTS REPORTED HEREIN. THIS CERTIFICATION SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE APPROVAL OF MAC FASTENERS, INC.


Quality Assurance Representative

AS9100, ISO9001 REGISTERED
PJR #C2005-02853



P.O. Box 025263, Miami, FL 33102-5263 • Tel: 305.925.2600 • Fax: 305.507.7191
Plant Location: 10000 N.W. 15th Terrace, Miami, FL 33172 • SITA: MIAMMCR
www.KLXaerospace.com

Shipped From: 10000 NW 15 TERRACE, MIAMI, FL 33172

Material Certification

The items set forth on the purchase order referred to below have been visually inspected and the dimensions thereof have been measured by us, and based on the aforesaid, as well as the representation made to us by the manufacturers of the items subject of such purchase order, we hereby certify that such items are in conformity with all current governmental and manufacturer's requirements, specifications, drawings, and conform to the purchase order requirements. Said items are in new condition and have not been obtained from any U.S. Government or Military source and are traceable to KLX Aerospace Solutions.

FIRM: DART AEROSPACE LTD

PURCHASE ORDER#: P028796

LIN#	QUANTITY	U/M	PART-NUMBER	CUST REF#	LOT-NUMBER	MANUFACTURER	CCODE	MFR DATE	EXP DATE
11	50	EA	AN5-36A		12282	AIRPASCO INDUSTRIES	3Z958		


Jason Lewis
Senior Director, Global Quality

06/12/15




**2655 HARRISON AVE. SW
CANTON, OH 44706
PHONE: (330)430-6190
FAX: (330)430-6199**

CERTIFICATE OF CONFORMANCE

B/E AEROSPACE

I Hereby Certify that on 2/4/13 Airfasco Industries provided the supplies called for by Contract/ PO Number 0MSJ66 in accordance with all applicable requirements for shipment. I further state that the process certifications are in conformance with the contract requirements, including specifications and/or drawings, physical item identification (part number) and the quantity shown on this or attached acceptance document. The part numbers certified below have been manufactured in the United States. DFAR 252.225-7014 ALT 1 compliant in fastener base raw material melt source only, with heat number and country, does not include the post cadmium metal plating.


WM. DENT

Quality Assurance Representative

[illegible]



P.O. Box 025263, Miami, FL 33102-5263 • Tel: 305.925.2600 • Fax: 305.507.7191
Plant Location: 10000 N.W. 15th Terrace, Miami, FL 33172 • SITA: MIAMMCR
www.KLXAerospace.com

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FIRM: DART AEROSPACE LTD

PURCHASE ORDER#: PO28796

LINE#	QUANTITY	U/M	PART-NUMBER	CUST REF#	LOT-NUMBER	MANUFACTURER	CCODE	MFR DATE	EXP DATE
4	200	EA	AN4-15A		68551	MAC FASTENERS		ORPT4	


Jason Lewis
Senior Director, Global Quality

06/12/15

Inv # 06/12/15

MAC FASTENERS, INC.
1110 ENTERPRISE
OTTAWA, KANSAS 66067

**CERTIFICATE OF CONFORMANCE
AND
MANUFACTURER'S AFFIDAVIT**

CUSTOMER: B/E AEROSPACE

PO: 0RBJ63

PART NUMBER: AN4-15A

REV: 3

LOT NUMBER: 68551

MANUFACTURED QUANTITY: 84,000

MILL HEAT NUMBER: 8195136

COUNTRY OF ORIGIN: UNITED STATES OF AMERICA

DFARS 252.225.7009 Compliant

MERCURY FREE CERTIFICATION

MacFasteners certifies that the parts referenced in the above lot number do not contain Mercury or Mercury compounds, and were manufactured in a Mercury free environment.

We certify that the parts furnished against the above referenced purchase order were manufactured by MAC FASTENERS within the United States, and were processed in accordance with all applicable drawings and specifications. Objective evidence of compliance is on file, subject to examination upon request.

Mac Fasteners is an AS9100C Registered Company - SAI GLOBAL - 0058029
Mac Fasteners is a DISC QSLM approved Manufacturer - CAGE Code 0RFT4
Mac Fasteners is an Airbus approved Supplier - 203399

DATE: 05/08/14


QUALITY ASSURANCE REPRESENTATIVE

MAC FASTENERS, INC.
1110 EAST ENTERPRISE
OTTAWA, KS 66067

CHEMICAL & PHYSICAL TEST REPORT

CUSTOMER B/E AEROSPACE	PO NUMBER 0RBJ63	MFG QUANTITY 84,000	DATE 05/08/14
PART NUMBER AN4-15A	REV 3	LOT NO 68551	PROCUREMENT SPEC NASM6812

MATERIAL TYPE 8740				MATERIAL SPECIFICATION MIL-S-6049/AMS6322				MILL HEAT NUMBER 8195136			SUPPLIER JOHNSTOWN		
C .42	Si .25	Mn .87	P .010	S .012	Cu .07	Ni .43	Cr .50	Mo .21	V .003	B	Fe	Al .027	Ti
	Co	N .0064	Bi	Pb	Mg	Zn		Nb	Sn .004			Other	

MECHANICAL TEST RESULTS - TESTING PER NASM1312

ULTIMATE TENSILE STRENGTH POUNDS	
6,020	
6,070	
6,050	
6,100	
6,080	
MIN. REQ.	4,080

DOUBLE SHEAR STRENGTH POUNDS / PSI	
8,860	
8,980	
8,940	
8,910	
8,960	
MIN. REQ.	7,360

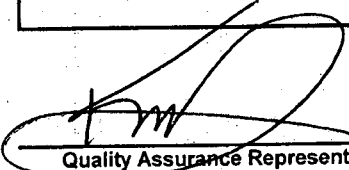
HARDNESS	
ROCKWELL "C" SCALE	
REQ.	26 - 32 HRC
SAMPLE SIZE	5
ACTUAL RESULTS	
28 - 30 HRC	

METALLURGICAL EXAMINATION			
Discontinuities	<input checked="" type="checkbox"/>	Carb/Decarb	<input checked="" type="checkbox"/>
Grain Flow	<input checked="" type="checkbox"/>	Microstructure	<input checked="" type="checkbox"/>
Grain Size	<input checked="" type="checkbox"/>	Appearance	<input checked="" type="checkbox"/>
Thread Inspection System <input type="checkbox"/> System <input checked="" type="checkbox"/> System <input type="checkbox"/> FED-STD-H28/20 - ASME B1.3 21 22 23			

NDT/ ADDITIONAL TESTS	
Magnetic Particle Inspection per ASTM E1444	<input checked="" type="checkbox"/>
Liquid Penetrant Inspection per ASTM E1417	<input type="checkbox"/>
Recess Torque Test	<input type="checkbox"/>
Head Marking	<input checked="" type="checkbox"/>
Magnetic Permeability ASTM A342 less than 2.0	<input type="checkbox"/>

TEST CERTIFICATION

WE CERTIFY THAT THE PART NUMBER, LOT NUMBER, AND SAMPLES REFERENCED ABOVE HAVE BEEN TESTED IN ACCORDANCE WITH THE APPLICABLE SPECIFICATION FOR THE TESTS REPORTED HEREIN. THIS CERTIFICATION SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE APPROVAL OF MAC FASTENERS, INC.


Quality Assurance Representative

AS9100C REGISTERED
SAI GLOBAL - 0058029



P.O. Box 025263, Miami, FL 33102-5263 • Tel: 305.925.2600 • Fax: 305.507.7191
Plant Location: 10000 N.W. 15th Terrace, Miami, FL 33172 • SITA: MIAMMCR
www.KLXaerospace.com

Shipped From: 10000 NW 15 TERRACE, MIAMI, FL 33172


Material Certification

The items set forth on the purchase order referred to below have been visually inspected and the dimensions thereof have been measured by us, and based on the aforesaid, as well as the representation made to us by the manufacturers of the items subject of such purchase order, we hereby certify that such items are in conformity with all current governmental and manufacturer's requirements, specifications, drawings, and conform to the purchase order requirements. Said items are in new condition and have not been obtained from any U.S. Government or Military source and are traceable to KLX Aerospace Solutions.

FIRM: DART AEROSPACE LTD

PURCHASE ORDER#: PO28796

LNE#	QUANTITY	U/M	PART-NUMBER	CUST REF#	LOT-NUMBER	MANUFACTURER	CCODE	MFR DATE	EXP DATE
7	75	EA	AN4-51A		14474	AIRFASCO INDUSTRIES	32958		



Jason Lewis
Senior Director, Global Quality

06/12/15



AIRFASCO
INDUSTRIES
MANUFACTURER OF AEROSPACE PRODUCTS

2655 HARRISON AVE. SW
CANTON, OH 44706
PHONE: (330)430-6190
FAX: (330)430-6199

CERTIFICATE OF CONFORMANCE

M&M AEROSPACE HARDWARE

I hereby certify that on 7/11/2008 AIRFASCO Industries provided the supplies called for by Contract/ PO Number **0FN104** in accordance with all applicable requirements for shipment. I further state that the process certifications are in conformance with the contract requirements, including specifications and/or drawings, physical item identification (part number) and the quantity shown on this or attached acceptance document. The part numbers certified below have been manufactured in the United States.


WM. DENT

Quality Assurance Representative

PART NUMBER	LOT NUMBER	QUANTITY	PART NUMBER	LOT NUMBER	QUANTITY
AN4-51A	14474	2500			

C1F3-0



P.O. Box 025263, Miami, FL 33102-5263 • Tel: 305.925.2600 • Fax: 305.507.7191
Plant Location: 10000 N.W. 15th Terrace, Miami, FL 33172 • SITA: MIAMMCR
www.KLXaerospace.com

Shipped From: 10000 NW 15 TERRACE, MIAMI, FL 33172


Material Certification

The items set forth on the purchase order referred to below have been visually inspected and the dimensions thereof have been measured by us, and based on the aforesaid, as well as the representation made to us by the manufacturers of the items subject of such purchase order, we hereby certify that such items are in conformity with all current governmental and manufacturer's requirements, specifications, drawings, and conform to the purchase order requirements. Said items are in new condition and have not been obtained from any U.S. Government or Military source and are traceable to KLX Aerospace Solutions.

FIRM: DART AEROSPACE LTD

PURCHASE ORDER#: P028796

LNE#	QUANTITY	U/M	PART-NUMBER	CUST REF#	LOT-NUMBER	MANUFACTURER	CCODE	MFR DATE	EXP DATE
2	1200	EA	AN3C4A		72257	MAC FASTENERS	ORPT4		


Jason Lewis
Senior Director, Global Quality

06/12/15

Inv # 06/12/15

MACFASTENERS, INC.

Packing List

Bill KLX INC.

To: 10000 NW 15TH TERRACE
MIAMI, FL 33172

Ship B/E AEROSPACE CONSUMABLES MGMT

To: 9835 NW 14th Street
Miami, FL 33172
United States

Shipment No: 69557
Shipment Date: 05/20/15
Ship Via: United Parcel Service
Order Number: 50586
Order Date: 03/17/14

Customer Code: BE AEROSPACE
Phone: (305) 925-2600
PO Number: 0WXF63
Terms: Net 30 Days

LOT #72257

<u>Item</u>	<u>Quantity</u>				<u>Unit</u>	<u>Description</u>	<u>Revision</u>	<u>Job Number</u>
	<u>Open</u>	<u>Shipped</u>	<u>Back Ord</u>	<u>Canceled</u>				
2	75,000	79,955	0		M	AN3C4A Bolt, machine-- Aircraft		72257

Packing Clerk's Initials
MACFASTENERS, INC.

Received In Good Order By
B/E AEROSPACE CONSUMABLES MGMT

MAC FASTENERS, INC.
1110 ENTERPRISE
OTTAWA, KANSAS 66067

**CERTIFICATE OF CONFORMANCE
AND
MANUFACTURER'S AFFIDAVIT**

CUSTOMER: KLX AEROSPACE SOLUTIONS

PO: 0WXF63

PART NUMBER: AN3C4A

REV: 3

LOT NUMBER: 72257

MANUFACTURED QUANTITY: 90,000

MILL HEAT NUMBER: 573669

COUNTRY OF ORIGIN: UNITED STATES OF AMERICA

DFARS 252.225.7009 Compliant

MERCURY FREE CERTIFICATION

MacFasteners certifies that the parts referenced in the above lot number do not contain Mercury or Mercury compounds, and were manufactured in a Mercury free environment.

We certify that the parts furnished against the above referenced purchase order were manufactured by MAC FASTENERS within the United States, and were processed in accordance with all applicable drawings and specifications. Objective evidence of compliance is on file, subject to examination upon request.

Mac Fasteners is a DISC QSLM approved Manufacturer - CAGE Code 0RFT4
Mac Fasteners is an Airbus approved Supplier - 203399

DATE: 05/20/15


QUALITY ASSURANCE REPRESENTATIVE

MAC FASTENERS, INC.
1110 EAST ENTERPRISE
OTTAWA, KS 66067

CHEMICAL & PHYSICAL TEST REPORT

CUSTOMER KLX AEROSPACE SOLUTIONS	PO NUMBER 0WXF63	MFG QUANTITY 90,000	DATE 05/20/15
PART NUMBER AN3C4A	REV 3	LOT NO 72257	PROCUREMENT SPEC NASM6812

MATERIAL TYPE 431				MATERIAL SPECIFICATION ASTM A493				MILL HEAT NUMBER 573669			SUPPLIER CARPENTER		
C	Si	Mn	P	S	Cu	Ni	Cr	Mo	V	B	Fe	Al	Ti
.16	.54	.65	.017	.002		1.57	1539						
	Co	N	Bi	Pb	Mg	Zn		Nb	Sn			Other	

MECHANICAL TEST RESULTS - TESTING PER NASM1312

ULTIMATE TENSILE STRENGTH POUNDS	
3,300	
3,330	
3,350	
3,310	
3,340	
MIN. REQ.	2,210

DOUBLE SHEAR STRENGTH POUNDS / PSI	
TOO SHORT TO TEST PER NASM1312-13	
MIN. REQ.	

HARDNESS	
ROCKWELL "C" SCALE	
REQ.	26 - 32 HRC
SAMPLE SIZE	5
ACTUAL RESULTS	
28 - 29 HRC	

METALLURGICAL EXAMINATION			
Discontinuities	<input checked="" type="checkbox"/>	Carb/Decarb	<input checked="" type="checkbox"/>
Grain Flow	<input checked="" type="checkbox"/>	Microstructure	<input checked="" type="checkbox"/>
Grain Size	<input checked="" type="checkbox"/>	Appearance	<input checked="" type="checkbox"/>
Thread Inspection FED-STD-H28/20 - ASME B1.3		System <input type="checkbox"/> 21	System <input checked="" type="checkbox"/> 22
			System <input type="checkbox"/> 23

NDT/ ADDITIONAL TESTS	
Magnetic Particle Inspection per ASTM E1444	<input type="checkbox"/>
Liquid Penetrant Inspection per ASTM E1417	<input type="checkbox"/>
Head Marking	<input checked="" type="checkbox"/>
Fatigue Strength	<input type="checkbox"/>
Stress Durability Test NASM1312/5	<input type="checkbox"/>
	<input type="checkbox"/>
Magnetic Permeability ASTM A342 Less than 2.0	<input type="checkbox"/>

TEST CERTIFICATION

WE CERTIFY THAT THE PART NUMBER, LOT NUMBER, AND SAMPLES REFERENCED ABOVE HAVE BEEN TESTED IN ACCORDANCE WITH THE APPLICABLE SPECIFICATION FOR THE TESTS REPORTED HEREIN. THIS CERTIFICATION SHALL NOT BE RE-PRODUCED, EXCEPT IN FULL, WITHOUT THE APPROVAL OF MAC FASTENERS, INC.


Quality Assurance Representative

MAC FASTENERS, INC.
1110 ENTERPRISE
OTTAWA, KANSAS 66067

HEAT TREAT CERTIFICATION

CUSTOMER: KLX AEROSPACE SOLUTIONS

DATE: 05/20/15

PO NUMBER: 0WXF63

MANUFACTURED QUANTITY: 90,000

PROCESSOR:

PAULO PRODUCTS KCMO - NADCAP ID 4679

LOT NUMBER: 72257

MATERIAL: TYPE 431

PART NUMBER: AN3C4A

REVISION: 3

REQUIRED HARDNESS: 26 - 32 HRC

SAMPLE SIZE: 5

HARDNESS: 28 - 29 HRC

HEAT TREAT SPECIFICATION AS APPLICABLE: MIL-H-6875/AMS-H-6875/AMS2759/AMS5853/PS-1001

Notes:

The fasteners referenced in this report have been processed, inspected and certified by the Heat Treat Contractor in accordance with all applicable drawings and specifications. Heat Treatment has been verified in accordance with procurement specification and part drawing, by metallurgical and mechanical testing as applicable. Evidence of compliance as well as certification from the Heat Treat Contractor is on file and subject to examination upon request.



QUALITY ASSURANCE REPRESENTATIVE

DE TRAY Plating Works

Specialized Electro-Plating and Polishing

Nickel

Copper

Decorative Chrome

Satin Chrome

Zinc

Cadmium

Passivate

Bright Dip

Strip Copper

Descale

10405 EAST ELEVENTH STREET • INDEPENDENCE, MISSOURI 64052
Phone (816) 252-8411 Fax (816) 252-8527 • E-mail : DeTrayPlating@aol.com

CUSTOMER: Mac Fasteners

Lot#: 72257

PART NUMBER: AN3C4A

PROCUREMENT SPECIFICATION: n/a

OTHER CONTRACTURAL REQUIREMENTS:

MATERIAL: 431

QUANTITY: 595 lbs

INVOICE NUMBER: 190311

Certification Statement:

We certify that the above referenced lot was processed, tested, and inspected in accordance with passivate treatment per AMS2700 Method 1, Class 4 and part standard.

DE TRAY PLATING WORKS

NAME: 

JOB TITLE: VICE-PRESIDENT

DATE: 5/18/15

CERTIFICATE OF TESTS
CERT SERIAL# 000966315

ABNAHMEPRUEFZEUGNIS

CERTIFICAT DE CONTROLE



CARPENTER

Carpenter Technology Corporation
101 West Barn Street, Reading, Pa. 19601
Tel: (610) 208-2000 (800) 338-4592

114207078

- THE RECORDING OF FALSE, FICTITIOUS OR FRAUDULENT STATEMENTS OR ENTRIES ON THIS DOCUMENT MAY BE PUNISHED AS A FELONY UNDER FEDERAL STATUTES INCLUDING FEDERAL LAW, TITLE 18, CHAPTER 47.
- THE VALUES AND OTHER TECHNICAL DATA REPRESENT THE RESULTS OF ANALYSES AND TESTS MADE ON SAMPLES COLLECTED FROM THE TOTAL LOT. ORIGINAL DATA RECORDS CAN BE TRACED BY REFERENCE TO THE CARPENTER ORDER NUMBER.
- MATERIAL IS MANUFACTURED FREE FROM MERCURY, RADIUM, ALPHA AND GAMMA SOURCE CONTAMINATION.
- THIS DOCUMENT SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE WRITTEN CONSENT OF CARPENTER TECHNOLOGY CORPORATION.

02/06/15

CUSTOMER/BESTELLER/CLIENT

MAC FASTENERS INC

1110 E. ENTERPRISE
OTTAWA KS 66067

SELLER/VERKÄUFER/VEHDEURPAGE 1 OF 1

BOL

CUSTOMER ORDER NO./BESTELL-NR./N° DE COMMANDE	CARPENTER NO./WERKS-NR./N° DE REFERENCE INTERNE	DATE/DATUM/DATE	WEIGHT/GEWICHT/POIDS
104724	W57413	02/06/15	1016.000

HEAT NUMBER / SCHMELZE-NR. / N° DE COULEE: 573669

PRODUCT DESCRIPTION: TYPE 431 ANNEALED COLD FINISH SEAM FREE C HDG SC2 STRAND

CU/SOAP TENSILE MAX 115.0 KSI AIM: MIN 100.0 MAX 110.0
PART NUMBER: 431-.187

SPECIFICATION: ASTM-A493-09 (REAPPROVED 2013)

SIZE 0.187000 IN. (4.75 MM) RD WIRE

HEAT CHEMISTRY (WT%): (TEST METHOD IS SHOWN IN PARENTHESIS)

C (COM)	MN (XRF)	SI (XRF)	P (XRF)	S (COM)	CR (XRF)
0.16	0.65	0.54	0.017	0.002	15.9
NI (XRF)					
1.57					

THIS HEAT MELTED BY THE ELECTRIC ARC/AOD PROCESSES

TENSILE AS SHIPPED, KSI (MPA) 105.0 (724)

MATERIAL HAS BEEN MELTED AND MANUFACTURED IN THE USA WHICH IS A QUALIFYING COUNTRY TO DFARS REQUIREMENTS 252.225-7014 WITH ALTERNATE 1 FOR QUALIFYING COUNTRY 225.872.1, SUPERSEDED BY DFARS REQUIREMENTS DFARS 252.225-7008 AND 252.225-7009.

THIS ORDER WAS MANUFACTURED IN ACCORDANCE WITH CARPENTER SPECIALTY ALLOYS OPERATIONS QUALITY PROGRAM MANUAL, REVISION 31 DATED 09/03/13.

CARPENTER'S QUALITY MANAGEMENT SYSTEM WAS REGISTERED AS OF NOVEMBER 24, 2013 TO THE REQUIREMENTS OF ISO 9001:2008 APPROVAL CERTIFICATE 13-1996R BY PERFORMANCE REVIEW INSTITUTE. THIS CERTIFICATE OF TEST IS TYPE 3.1 PREPARED IN ACCORDANCE WITH EN 10204 (DIN 50049). WE HEREBY CERTIFY THAT THE ABOVE TEST DATA ARE IN ACCORDANCE WITH THE PURCHASE ORDER AND SPECIFICATION REQUIREMENTS, AS DOCUMENTED IN THIS CERTIFICATE OF TESTS.

TEST METHODS ARE PER THE ASTM STANDARDS ON FILE AND IN EFFECT AT TIME OF ORDER ACCEPTANCE, STANDARD PRACTICES, OR AS AGREED UPON BETWEEN CARPENTER & CUSTOMER.

GARY BROWN
MANAGER - SPECIFICATIONS/CERTIFICATIONS
CARPENTER TECHNOLOGY CORPORATION

Gary Brown

This certification is made to the customer printed on this form. Carpenter neither makes, nor assumes responsibility for, any representation or certification to other parties.
Die vorliegende Zertifizierung ist nur für den in diesem Formular genannten Kunden gültig. Carpenter übernimmt gegenüber Dritten keinerlei Haftung für die ausgetragenen Daten oder Zertifizierungen.
Ce certificat est uniquement valable pour le client dont le nom est imprimé sur ce formulaire. Carpenter n'assume pas de responsabilité pour une certification vis-à-vis d'une tierce personne.

S-1



P.O. Box 025263, Miami, FL 33102-5263 • Tel: 305.925.2600 • Fax: 305.507.7191
Plant Location: 10000 N.W. 15th Terrace, Miami, FL 33172 • SITA: MIAMMCR
www.KLXAerospace.com

Shipped From: 10000 NW 15 TERRACE, MIAMI, FL 33172

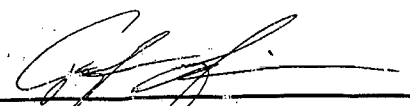
Material Certification

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FIRM: DART AEROSPACE LTD

PURCHASE ORDER#: PC28796

LINE#	QUANTITY	U/M	PART-NUMBER	CUST REF#	LOT-NUMBER	MANUFACTURER	CCODE	MFR DATE	EXP DATE
5	50	EA	AN4-17A		71246	MFG FASTENERS	ORPT4		


Jason Lewis
Senior Director, Global Quality

06/12/15

Inv # 06/12/15

MACFASTENERS, INC.

Packing List

Bill KLX INC.

To: 10000 NW 15TH TERRACE
MIAMI, FL 33172

Ship B/E AEROSPACE CONSUMABLES MGMT

To: 9835 NW 14th Street
Miami, FL 33172
United States

Shipment No: 67799
Shipment Date: 01/31/15
Ship Via: United Parcel Service
Order Number: 50037
Order Date: 01/03/14

Customer Code: BE AEROSPACE
Phone: (305) 925-2600
PO Number: OTWP84
Terms: Net 30 Days

LOT # 71246

<u>Item</u>	<u>Quantity</u>				<u>Unit</u>	<u>Description</u>	<u>Revision</u>	<u>Job Number</u>
	<u>Open</u>	<u>Shipped</u>	<u>Back Ord</u>	<u>Canceled</u>				
1	25,000	26,435	0		M	AN4-17A Bolt, machine-- Aircraft		71246

Packing Clerk's Initials
MACFASTENERS, INC.

Received In Good Order By
B/E AEROSPACE CONSUMABLES MGMT

MAC FASTENERS, INC.
1110 ENTERPRISE
OTTAWA, KANSAS 66067

**CERTIFICATE OF CONFORMANCE
AND
MANUFACTURER'S AFFIDAVIT**

CUSTOMER: KLX AEROSPACE SOLUTIONS

PO: 0TWP84

PART NUMBER: AN4-17A

REV: 3

LOT NUMBER: 71246

MANUFACTURED QUANTITY: 30,000

MILL HEAT NUMBER: 8196269

COUNTRY OF ORIGIN: UNITED STATES OF AMERICA

DFARS 252.225.7009 Compliant

MERCURY FREE CERTIFICATION

MacFasteners certifies that the parts referenced in the above lot number do not contain Mercury or Mercury compounds, and were manufactured in a Mercury free environment.

We certify that the parts furnished against the above referenced purchase order were manufactured by MAC FASTENERS within the United States, and were processed in accordance with all applicable drawings and specifications. Objective evidence of compliance is on file, subject to examination upon request.

Mac Fasteners is a DISC QSLM approved Manufacturer - CAGE Code 0RFT4
Mac Fasteners is an Airbus approved Supplier - 203399

DATE: 01/30/15


QUALITY ASSURANCE REPRESENTATIVE

DE TRAY Plating Works

Specialized Electro-Plating and Polishing
Nickel
Copper
Decorative Chrome
Satin Chrome
Zinc
Cadmium
Passivate
Bright Dip
Strip Copper
Descale

10405 EAST ELEVENTH STREET • INDEPENDENCE, MISSOURI 64052
Phone (816) 252-8411 Fax (816) 252-8527 • E-mail: DeTrayPlating@aol.com

January 29, 2015

Mac Fasteners
1110 East Enterprise Street
Ottawa, Kansas 66067

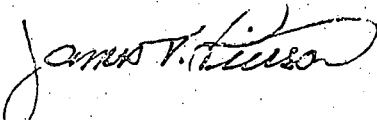
Subject: Certification

This is to certify that the following parts have been cadmium plated per QQ-P416/AMS-QQ-P-416/NAS4160/AMS2400, Type II, Class 2. Please reference our Invoice# 187046 dated 1/29/15 for:

Lot# 71246

P.N.- AN4-17A

James T. Pierson, Vice-President


DE TRAY PLATING WORKS

SIKORSKY
1405
DQR

MAR 24 2015



MAC FASTENERS, INC.
1110 ENTERPRISE
OTTAWA, KANSAS 66067

**CERTIFICATE OF CONFORMANCE
AND
MANUFACTURER'S AFFIDAVIT**

CUSTOMER: KLX AEROSPACE SOLUTIONS

PO: 0TWP84

PART NUMBER: AN4-17A ✓

REV: 3 ✓

LOT NUMBER: 71246 ✓

MANUFACTURED QUANTITY: 30,000

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Mac Fasteners is an Airbus approved Supplier - 203399

SIKORSKY
1405
DQR

MAR 24 2015



DATE: 01/30/15


QUALITY ASSURANCE REPRESENTATIVE

MAC FASTENERS, INC.
1110 EAST ENTERPRISE
OTTAWA, KS 66067

CHEMICAL & PHYSICAL TEST REPORT

CUSTOMER KLX AEROSPACE SOLUTIONS	PO NUMBER OTWP84	MFG QUANTITY 30,000	DATE 01/30/15
PART NUMBER AN4-17A	REV 3	LOT NO 71246	PROCUREMENT SPEC NASM6812

MATERIAL TYPE 8740				MATERIAL SPECIFICATION MIL-S-6049/AMS6322				MILL HEAT NUMBER 8196269			SUPPLIER JOHNSTOWN		
C	Si	Mn	P	S	Cu	Ni	Cr	Mo	V	B	Fe	Al	Ti
.40	.26	.90	.014	.011	.12	.42	.50	.21	.005			.032	
	Co	N	Bi	Pb	Mg	Zn		Nb	Sn			Other	
		.0062							.005				

MECHANICAL TEST RESULTS - TESTING PER NASM1312

ULTIMATE TENSILE STRENGTH POUNDS	
6,110	
6,090	
6,080	
6,100	
6,090	
MIN. REQ.	4,080

DOUBLE SHEAR STRENGTH POUNDS / PSI	
9,030	
8,890	
9,010	
8,970	
MIN. REQ.	7,360

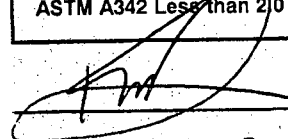
HARDNESS	
ROCKWELL "C" SCALE	
REQ.	26 - 32 HRC
SAMPLE SIZE	5
ACTUAL RESULTS	
30 - 31 HRC	

METALLURGICAL EXAMINATION			
Discontinuities	<input checked="" type="checkbox"/>	Carb/Decarb	<input checked="" type="checkbox"/>
Grain Flow	<input checked="" type="checkbox"/>	Microstructure	<input checked="" type="checkbox"/>
Grain Size	<input checked="" type="checkbox"/>	Appearance	<input checked="" type="checkbox"/>
Thread Inspection FED-STD-H28/20 - ASME B1.3		System <input type="checkbox"/> 21	System <input checked="" type="checkbox"/> 22
		System <input type="checkbox"/> 23	

NDT/ ADDITIONAL TESTS	
Magnetic Particle Inspection per ASTM E1444	<input checked="" type="checkbox"/>
Liquid Penetrant Inspection per ASTM E1417	<input type="checkbox"/>
Head Marking	<input checked="" type="checkbox"/>
Fatigue Strength	<input type="checkbox"/>
Stress Durability Test NASM1312/5	<input type="checkbox"/>
Stress Rupture Test	<input type="checkbox"/>
Magnetic Permeability ASTM A342 Less than 20	<input type="checkbox"/>

TEST CERTIFICATION

WE CERTIFY THAT THE PART NUMBER, LOT NUMBER, AND SAMPLES REFERENCED ABOVE HAVE BEEN TESTED IN ACCORDANCE WITH THE APPLICABLE SPECIFICATION FOR THE TESTS REPORTED HEREIN. THIS CERTIFICATION SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE APPROVAL OF MAC FASTENERS, INC.


Quality Assurance Representative

Paulo Products Co Heat Treat Certification

PART NUMBER	PO #	LOT/ JOB #	QTY	NET WT	MTL	HRC REQ'D	# OF SAMP	PAULO ORDER #	RESULTS	*AUSTENTIZE*		*TEMPER*	
										EQUIP/ CYCLE ID	TEMP/ TIME	EQUIP ID	TEMP/ TIME
NAS6604D5	108769	76054	5,000	77	8740	36 - 40	8	1300641-04	36 - 38 HRC	904/185230-2	1550±25°/1hr05min	926	865±15°/2hr10min
NAS6604D7	108770	76056	5,000	86	8740	36 - 40	8	1300641-05	38 - 39 HRC	904/185230-2	1550±25°/1hr05min	926	865±15°/2hr10min
AN5-31A	108773	74706	7,350	611	8740	26 - 32	8	1300641-07	27 - 29 HRC	501/186335-1	1550±25°/1hr20min	531	1100±15°/2hr00min
AN4-17A	108786	71246	25,000	846	8740	26 - 32	8	1300887-04	30 - 31 HRC	501/186341-1	1550±25°/1hr	531	1080±15°/2hr00min
NAS623-5-5	108807	73802	5,000	149	8740	36 - 40	8	1301179-01	37 - 39 HRC	501/186323-1	1550±25°/1hr20min	531	880±15°/2hr00min
AN174-17A	108815	75173	4,000	135	8740	26 - 32	8	1301179-03	29 - 30 HRC	501/186337-1	1550±25°/1hr	531	1080±15°/2hr00min
MS24694S94	108823	77582	15,000	119	8740	26 - 32	8	1301179-07	26 - 29 HRC	501/186339-1	1550±25°/1hr	531	1080±15°/2hr00min
NAS514P428-8P	108824	74914	15,000	106	8740	26 - 32	8	1301179-08	26 - 30 HRC	501/186346-1	1550±25°/1hr	531	1080±15°/2hr00min
NAS6203-9D	108893	76978	4,000	45	8740	36 - 40	8	1301432-02	37.6 - 40.1 HRC (57.3 - 59.5 HR30N)	904/186411-1	1550±25°/1hr05min	926	865±15°/2hr10min
NAS1100-06-6	108894	74227	125,000	282	8740	36 - 40	8	1301432-03	37.7 - 39.4 HRC (57.4 - 58.9 HR30N)	904/186415-1	1550±25°/1hr05min	926	865±15°/2hr10min
NAS1103-4D	108895	74226	10,000	84	8740	36 - 40	8	1301432-04	36.9 - 39.9 HRC (56.7 - 59.4 HR30N)	904/186406-1	1550±25°/1hr05min	926	865±15°/2hr10min
AN5-31	108897	74154	5,000	419	8740	26 - 32	8	1301432-06	28 - 30 HRC	501/186333-1	1550±25°/1hr20min	531	1100±15°/2hr00min
AN5-23A	108899	75476	5,000	329	8740	26 - 32	8	1301432-07	28 - 29 HRC	501/186334-1	1550±25°/1hr20min	531	1100±15°/2hr00min
AN3-25A	108902	75714	9,900	242	8740	26 - 32	8	1301432-10	26.9 - 31.3 HRC (47.7 - 51.6 HR30N)	501/186344-1	1550±25°/1hr	531	1080±15°/2hr00min
NAS1581F5T19	108731	70726	5,693	192	8740	36 - 40	8	1301703-01	36 - 39 HRC	501/186332-1	1550±25°/1hr20min	531	880±15°/2hr00min
AN4-12A	108853	75513	83,261	1919	8740	26 - 32	8	1301703-02	28 - 30 HRC	501/186347-1	1550±25°/1hr	531	1080±15°/2hr00min
AN4-11A	108854	75516	83,426	1800	8740	26 - 32	8	1301703-03	27 - 30 HRC	501/186348-1	1550±25°/1hr	531	1080±15°/2hr00min
NAS605-14P	108855	71933	10,985	301	8740	36 - 40	8	1301703-04	38 - 39 HRC	501/186330-1	1550±25°/1hr20min	531	880±15°/2hr00min
NAS605-14P	108856	71934	17,372	469	8740	36 - 40	8	1301703-05	38 - 39 HRC	501/186331-1	1550±25°/1hr20min	531	880±15°/2hr00min
NAS1351-6-32P	108852	75407	9,176	665	8740	41 - 43	8	1301703-07	41 - 42 HRC	501/186322-1	1550±25°/1hr20min	531	775±15°/2hr00min

QUENCH METHOD: OIL

CERTIFICATION

WE CERTIFY THAT THE ABOVE REFERENCED PARTS WERE HEAT TREATED IN ACCORDANCE WITH AMS2759 AND CUSTOMER REQUIREMENTS. SAMPLES HAVE BEEN TESTED TO VERIFY HARDNESS AS SPECIFIED PER CUSTOMER REQUIREMENTS. PAULO PRODUCTS, INC. IS A NADCAP CERTIFIED PROCESSOR.

d_mac_nadcap_cert_log

INSPECTOR

Melissa W. [Signature]

DATE

1-22-15

APPROVED BY

Results: ** denotes (Customer Accepted AS-IS - Deviation on File)

DE TRAY

Plating Works

Specialized Electro-Plating and Polishing

Nickel

Copper

Decorative Chrome

Satin Chrome

Zinc

Cadmium

Passivate

Bright Dip

Strip Copper

Descale

10405 EAST ELEVENTH STREET • INDEPENDENCE, MISSOURI 64052
Phone (816) 252-8411 Fax (816) 252-8527 • E-mail : DeTrayPlating@aol.com

January 29, 2015

Mac Fasteners
1110 East Enterprise Street
Ottawa, Kansas 66067

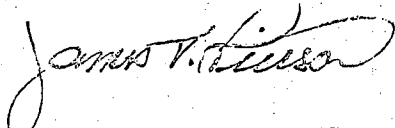
Subject: Certification

This is to certify that the following parts have been cadmium plated per QQ-P416/AMS-QQ-P-416/NAS4160/AMS2400, Type II, Class 2. Please reference our Invoice# 187046 dated 1/29/15 for:

Lot#- 71246

P.N.- AN4-17A

James T. Pierson, Vice-President



DE TRAY PLATING WORKS



**Johnstown
Wire
Technologies**

124 Laurel Ave,
Johnstown, PA 15906
Phone: 814-532-5680
Fax: 814-532-5684

WORK ORDER
846904

TEST REPORT
LOT NUMBER
K-8196269
SALES ORDER / RLS
008543 / 2

SOLD TO

Mac Fasteners Best Way Distribution
Best Way Distribution
13209 Arrington Rd. Docks 17-20
Grandview, MO 64030
USA



CUSTOMER P.O. 46194	CUSTOMER PART 8740-.2465	QUANTITY 22,944 LBS	COILS 12	LADING NO 00128507	SHIPMENT DATE 12/08/2014						
SPECIFICATION: MacFast-87246 AMS2301; AMS6322; AMS-S-6049A; MIL-S-6049A 8740 DFARS TS 95000 PSI Max Defense Federal Acquisition Regulation Supplement Silicon Killed Fine Grain Aircraft Quality/Cold Heading Quality Drawn From Annealed Rod Spherodize Annealed In Process Heavy Phos & Light Lube Cld Size: .2465 +.0005 -.0005											
CERTIFICATION REQUIREMENTS											
Chemical											
C .40	Mn .90	P .014	S .011	Si .26	Al .032	Ni .42	Cr .50	Mo .21	Cu .12	V .005	
Cb .001	Ti ???????	N .0062	Sn .005								
Physical											
J1 58	J10 42	J11 40	J12 38	J2 58	J3 57	J5 55	J4 56	J6 54	J7 51	J8 48	J9 45
Mechanical											
TEST	UNITS	HIGH	LOW	AVERAGE							
Tensile Str	Lbs/SqIn	88000	85000	87000							
RA Per Cent	Percent	72.7	64.9	68.3							
Decarb FFD	Inches	.000	.000	.000							
Surface def. depth	Inches	.000	.000	.000							
Rod / Melt Source											
Rod Source Republic	Melt Source Republic	Country of Origin USA	Nafta Yes								
End of Certification											

I certify that the results are a true and correct copy of the records prepared and maintained by JOHNSTOWN WIRE TECHNOLOGIES in compliance with the requirements of the cited specification. Chemistry is as reported by the rod / bar supplier and is not in JWT A2LA accreditation. This test report cannot be reproduced or distributed except in full without the written permission of JOHNSTOWN WIRE TECHNOLOGIES. The test results certified herein relate only to the items tested.

Daniel J. Mallik
Daniel J. Mallik Director of Quality Assurance



CERTIFICATE OF TESTS

1801 EAST 28TH ST.
STOKES: 330-438-5380LORAIN, OH 44035
FAX: 330-438-5695

REPUBLIC STEEL

6/25/2014
4:16:00 PM
PAGE 1 OF 2PURCHASE ORD: 86685
PART NUMBER: FXT40AA-.375
ORDER NUMBER: 1591797 - 01
HEAT: 8196269PURCHASE ORDER DATE: 6/2/2014
ACCOUNT NUMBER: 5672-1921-01
SCHEDULE: 1100-95
REVISION: 1

===== CHARGE ADDRESS =====

JOHNSTOWN WIRE TECHNOLOGIES
124 LAUREL AVE
JOHNSTOWN, PA 15906

===== SHIP TO =====

JOHNSTOWN WIRE TECHNOLOGIES
EDWARD ZAPOLA
C/O C & BL RAILROAD
TRACK 629
JOHNSTOWN, PA 15901

----- MATERIAL DESCRIPTION -----

HOT ROLLED STEEL COILS ALLOY JOHNSTOWN WIRE SPEC RW-100 REVISION DTD 04/21/04 EXC PARA 10.3 AMS
6322N EXC HARD JOHNSTOWN WIRE SPEC PART NO. FXT40AA REVISION DTD 12/31/00 MIL S 6049A & AMD 1 COND
B-1 EXC MARK & UT WAIVED AMS 2301K JOHNSTOWN WIRE SPEC RW-005 REVISION DTD 12/31/00 EXC SURFACE
DEFECTS EF-AISI-8740-H FINE GRAIN VACUUM DEGAUSED AIRCRAFT QUALITY FIXED PRACTICE QUALITY RESTRICTED
CHEMISTRY RESTRICTED MAX INCIDENTAL ELEMENTS
SIZE: RDS .3750 DIAM X COIL
RDS 9.5250MM DIAM X COIL

----- LADLE CHEMISTRY % -----

C	MN	P	S	SI	CU	NI	CR
0.40	0.90	0.014	0.011	0.26	0.12	0.42	0.50
V	MO	SN	AL	B	CB	N	
0.005	0.21	0.005	0.032	0.0000	0.001	0.0062	

----- CALCULATED TESTS -----

REDUCTION RATIO 1,177.6 TO 1

----- SEMI - FINISHED RESULTS -----

GRAIN SIZE TEST ASTM A29/ASTM E112
PCE H10301 MCQUAID = 7.00000JOMINY HARDNESS TEST SAE J406/ASTM A255
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 18 20 22 24 26 28 30 32
58 58 57 56 55 54 51 48 45 42 40 38 36 35 35 34 32 32 31 30 30 29 29 29MACRO ETCH TEST ASTM E381/MIL STD 430
ETCHANT: HCL TEMPERATURE: 170
S R C
AVG 1 1 1MAGNETIC PARTICLE TEST AMS 2301 AMS2304
IND AVG IND AVG
FREQ FREQ SEV SEV
PCE 03 0 0 0 0

----- FINISHED SIZE RESULTS -----

DECARBURIZATION TEST SAE J419/ASTM E1077/JIS G0558
ETCHANT = NITAL MAGNIFICATION = 100X

SPIKE	COMPLETE	TOTAL
INCHES	INCHES	DEPTH
PCE 7868 0.003	0	0.002

G. KRUTH
DIRECTOR QUALITY ASSURANCE

BY DEBORAH STOKES



CERTIFICATE OF TESTS

1807 EAST 28TH ST.
PHONE: 330-438-3580LORAIN, OH 44033
FAX: 330-438-3495

REPUBLIC STEEL

6/25/2014
4:16:00 PM
PAGE 2 OF 2PURCHASE ORD: 86685
PART NUMBER: FXT40AA-.375
ORDER NUMBER: 1591797 - 01
HEAT: 8196269PURCHASE ORDER DATE: 6/2/2014
ACCOUNT NUMBER: 5672-1921-01
SCHEDULE: 1100-95
REVISION: 1

CAPABLE OF SEAM DEPTH 1/4 MAX DIAMETER NOT LESS THAN .005 MAX

NOTES

CHEMICAL ANALYSIS CONFORMS TO APPLICABLE SPECS: ASTM E415, LBL10129, LBL10130, ASTM E1019, LBL10158, LBL10114, AND ASTM E1085, LBL10184, LBL10188.

NOTES (CONTINUED)

REPUBLIC STEEL HEREBY CERTIFIES THAT THE MATERIAL LISTED HEREIN HAS BEEN INSPECTED AND TESTED IN ACCORDANCE WITH THE METHODS PRESCRIBED IN THE GOVERNING SPECIFICATIONS AND BASED UPON THE RESULTS OF SUCH INSPECTION AND TESTING HAS BEEN APPROVED FOR CONFORMANCE TO THE SPECIFICATIONS.

CERTIFICATE OF TESTS SHALL NOT BE REPRODUCED EXCEPT IN FULL.

ALL TESTING HAS BEEN PERFORMED USING THE CURRENT REVISION OF THE TESTING SPECIFICATIONS.

RECORDING OF FALSE, FICTITIOUS OR FRAUDULENT STATEMENTS OR ENTRIES ON THIS DOCUMENT MAY BE PUNISHED AS A FELONY UNDER FED STATUTES TITLE 18 CHAPTER 47.

THE MATERIAL WAS NOT EXPOSED TO MERCURY OR ANY METAL ALLOY THAT IS LIQUID AT AMBIENT TEMPERATURE DURING PROCESSING OR WHILE IN OUR POSSESSION.

NO WELD OR WELD REPAIR WAS PERFORMED ON THIS MATERIAL.

THE RESULTS REPORTED RELATE ONLY TO THE ITEMS TESTED.

THE PRODUCTS SUPPLIED BY REPUBLIC STEEL DO NOT HAVE TANTALUM, TIN, TUNGSTEN, OR GOLD (COLLECTIVELY, "CONFLICT MINERALS") ADDED DURING PRODUCTION. ANY MEASURABLE AMOUNTS OF THESE ELEMENTS CONTAINED IN OUR STEEL ARE DERIVED FROM RESIDUAL MATERIALS IN THE RECYCLED SCRAP THAT WE PURCHASE FOR ELECTRIC ARC FURNACE STEEL MAKING. THEY ARE NOT "NECESSARY TO THE FUNCTIONALITY OR PRODUCTION OF OUR STEEL."

SOURCE INFORMATION

MELT SOURCE: CANTON CAST ROLL MELT COUNTRY: U.S.A HOT ROLL SOURCE: LORAIN 9/10, U.S.A
MELT METHOD: EF BLOOM RED. RATIO: 1177.6

END OF DATA

CC

END OF DATA

WITH SHIPMENT 1 COPY PRINTED AT SHIPPING AREA
FAX SHIP TO 1 COPY ATTENTION EDWARD ZAPOLA
FILE 1 COPY

1-814-532-5684

G. KRUTH
DIRECTOR QUALITY ASSURANCE

BY DEBORAH STOKES

Paulo Products Co Heat Treat Certification

PART NUMBER	PO #	LOT/ JOB #	QTY	NET WT	MTL	HRC REQ'D	# OF SAMP	PAULO ORDER #	RESULTS	*AUSTENTIZE*	*TEMPER*		
										EQUIP/ CYCLE ID	TEMP/ TIME	EQUIP ID	TEMP/ TIME
NAS6604D5	108789	76054	5,000	77	8740	36-40	8	1300641-04	36 - 38 HRC	904/185230-2	1550±25°/1hr05min	926	865±15°/2hr10min
NAS6604D7	108770	76056	5,000	86	8740	36-40	8	1300641-05	38 - 39 HRC	904/185230-2	1550±25°/1hr05min	926	865±15°/2hr10min
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AN174-17A	108815	75173	4,000	135	8740	26-32	8	1301179-03	29 - 30 HRC	501/186337-1	1550±25°/1hr	531	1080±15°/2hr00min
MS24694S94	108823	77582	15,000	119	8740	26-32	8	1301179-07	26 - 29 HRC	501/186339-1	1550±25°/1hr	531	1080±15°/2hr00min
NAS514P428-8P	108824	74914	15,000	106	8740	26-32	8	1301179-08	26 - 30 HRC	501/186346-1	1550±25°/1hr	531	1080±15°/2hr00min
NAS6203-9D	108893	76978	4,000	45	8740	36-40	8	1301432-02	37.6 - 40.1 HRC (57.3 - 69.5 HR30N)	904/186411-1	1550±25°/1hr05min	926	865±15°/2hr10min
NAS1100-06-6	108894	74227	125,000	282	8740	36-40	8	1301432-03	37.7 - 39.4 HRC (57.4 - 58.9 HR30N)	904/186415-1	1550±25°/1hr05min	926	865±15°/2hr10min
NAS1103-4D	108895	74226	10,000	84	8740	36-40	8	1301432-04	36.9 - 39.9 HRC (56.7 - 59.4 HR30N)	904/186406-1	1550±25°/1hr05min	926	865±15°/2hr10min
AN5-31	108897	74154	5,000	419	8740	26-32	8	1301432-06	28 - 30 HRC	501/186333-1	1550±25°/1hr20min	531	1100±15°/2hr00min
AN5-23A	108899	75476	5,000	329	8740	26-32	8	1301432-07	28 - 29 HRC	501/186334-1	1550±25°/1hr20min	531	1100±15°/2hr00min
AN3-25A	108902	75714	9,900	242	8740	26-32	8	1301432-10	26.9 - 31.3 HRC (47.7 - 51.6 HR30N)	501/186344-1	1550±25°/1hr	531	1080±15°/2hr00min
NAS1581F5T19	108731	70728	5,693	192	8740	36-40	8	1301703-01	36 - 39 HRC	501/186332-1	1550±25°/1hr20min	531	880±15°/2hr00min
AN4-12A	108853	75513	83,261	1919	8740	26-32	8	1301703-02	28 - 30 HRC	501/186347-1	1550±25°/1hr	531	1080±15°/2hr00min
AN4-11A	108854	75516	83,426	1800	8740	26-32	8	1301703-03	27 - 30 HRC	501/186348-1	1550±25°/1hr	531	1080±15°/2hr00min
NAS605-14P	108855	71933	10,985	301	8740	36-40	8	1301703-04	38 - 39 HRC	501/186330-1	1550±25°/1hr20min	531	880±15°/2hr00min
NAS605-14P	108856	71934	17,372	469	8740	36-40	8	1301703-05	38 - 39 HRC	501/186331-1	1550±25°/1hr20min	531	880±15°/2hr00min
NAS1351-8-32P	108852	75407	9,176	685	8740	41-43	8	1301703-07	41 - 42 HRC	501/186322-1	1550±25°/1hr20min	531	775±15°/2hr00min

QUENCH METHOD: OIL



1405
MAR 2 4 2015
SILVERDA

CERTIFICATION

WE CERTIFY THAT THE ABOVE REFERENCED PARTS WERE HEAT TREATED IN ACCORDANCE WITH AMS2759 AND CUSTOMER REQUIREMENTS. SAMPLES HAVE BEEN TESTED TO VERIFY HARDNESS AS SPECIFIED PER CUSTOMER REQUIREMENTS. PAULO PRODUCTS, INC. IS A NADCAP CERTIFIED PROCESSOR.

d_mac_nadcap_cert_log

INSPECTOR Melissa Ward DATE 1-22-15
APPROVED BY [Signature]
Results: ** denotes (Customer Accepted AS-IS - Deviation on File)

MAC FASTENERS, INC.
1110 EAST ENTERPRISE
OTTAWA, KS 66067

CHEMICAL & PHYSICAL TEST REPORT

CUSTOMER KLX AEROSPACE SOLUTIONS	PO NUMBER 0TWP84	MFG QUANTITY 30,000	DATE 01/30/15
PART NUMBER AN4-17A ✓	REV 3 ✓	LOT NO 71246 ✓	PROCUREMENT SPEC NASM6812 ✓

MATERIAL TYPE 8740				MATERIAL SPECIFICATION MIL-S-6049/AMS6322 ✓				MILL HEAT NUMBER 8196269 ✓			SUPPLIER JOHNSTOWN		
C	Si	Mn	P	S	Cu	Ni	Cr	Mo	V	B	Fe	Al	Ti
.40	.26	.90	.014	.011	.12	.42	.50	.21	.005			.032	
	Co	N	Bi	Pb	Mg	Zn		Nb	Sn			Other	
		.0062							.005				

MECHANICAL TEST RESULTS - TESTING PER NASM1312

ULTIMATE TENSILE STRENGTH POUNDS	
6,110	
6,090	
6,080	
6,100	
6,090	
MIN. REQ.	4,080 ✓

DOUBLE SHEAR STRENGTH POUNDS / PSI	
9,030	
8,890	
9,010	
8,970	
MIN. REQ.	7,360 ✓

HARDNESS	
ROCKWELL "C" SCALE	
REQ.	26 - 32 HRC ✓
SAMPLE SIZE	5
ACTUAL RESULTS	
30 - 31 HRC	

METALLURGICAL EXAMINATION			
Discontinuities	✓	Carb/Decarb	✓
Grain Flow	✓	Microstructure	✓
Grain Size	✓	Appearance	✓
Thread Inspection FED-STD-H28/20 - ASME B1.3		System <input type="checkbox"/> 21	System <input checked="" type="checkbox"/> 22
		System <input type="checkbox"/> 23	

NDT/ ADDITIONAL TESTS	
Magnetic Particle Inspection per ASTM E1444	<input checked="" type="checkbox"/>
Liquid Penetrant Inspection per ASTM E1417	<input type="checkbox"/>
Head Marking	<input checked="" type="checkbox"/>
Fatigue Strength	<input type="checkbox"/>
Stress Durability Test NASM1312/5	<input type="checkbox"/>
Stress Rupture Test	<input type="checkbox"/>
Magnetic Permeability ASTM A342 Less than 20	<input type="checkbox"/>

TEST CERTIFICATION

WE CERTIFY THAT THE PART NUMBER, LOT NUMBER, AND SAMPLES REFERENCED ABOVE HAVE BEEN TESTED IN ACCORDANCE WITH THE APPLICABLE SPECIFICATION FOR THE TESTS REPORTED HEREIN. THIS CERTIFICATION SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE APPROVAL OF MAC FASTENERS, INC.


 Quality Assurance Representative

SIKORSKY
 1405
 DOR
 MAR 24 2015

3/24/15
 KLX
 130
 INSP



Johnstown Wire Technologies

124 Laurel Ave,
Johnstown, PA 15906
Phone: 814-532-5680
Fax: 814-532-5684

WORK ORDER
846904

TEST REPORT
LOT NUMBER
K-8196269
SALES ORDER / RLS
008543 / 2

SOLD TO

Mac Fasteners Best Way Distribution
Best Way Distribution
13209 Arrington Rd. Docks 17-20
Grandview, MO 64030
USA



CUSTOMER P.O. 46194	CUSTOMER PART 8740-2465	QUANTITY 22,944 LBS	COILS 12	LADING NO 00128507	SHIPMENT DATE 12/08/2014
SPECIFICATION: MacFast-87246 AMS2301; AMS6322; AMS-S-6049A; MIL-S-6049A 8740 DFARS TS 95000 PSI Max Defense Federal Acquisition Regulation Supplement Silicon Killed Fine Grain Aircraft Quality/Cold Heading Quality Drawn From Annealed Rod Spheroidize Annealed In Process Heavy Phos & Light Lube Ctd Size: .2465 +.0005 -.0005					
CERTIFICATION REQUIREMENTS					
Chemical					
C .40	Mn .90	P .014	S .011	Si .26	Al .032
				Ni .42	Cr .50
				Mo .21	Cu .12
					V .005
Ca .001	Ti ???????	N .0062	Sn .005		
Physical					
J1 58	J10 42	J11 40	J12 38	J2 58	J3 57
				J5 55	J4 56
				J6 54	J7 51
				J8 48	J9 45
Mechanical					
TEST	UNITS	HIGH	LOW	AVERAGE	
Tensile Str	Lbs/SqIn	88000	85000	87000	
RA Per Cent	Percent	72.7	64.9	68.3	
Decarb FFD	Inches	.000	.000	.000	
Surface def. depth	Inches	.000	.000	.000	
Rod / Melt Source					
Rod Source Republic	Melt Source Republic	Country of Origin USA	Nafta Yes		
End of Certification			SIKORSKY 1405 DQR MAR 24 2015	3/24/15 KLY 130 MSP	

I certify that the results are a true and correct copy of the records prepared and maintained by JOHNSTOWN WIRE TECHNOLOGIES in compliance with the requirements of the cited specification. Chemistry is as reported by the rod / bar supplier and is not in JWT A2LA accreditation. This test report cannot be reproduced or distributed except in full without the written permission of JOHNSTOWN WIRE TECHNOLOGIES. The test results certified herein relate only to the items tested.

Daniel J. Malik
Daniel J. Malik Director of Quality Assurance

1/29/2014 12:53 PM

REPUBLIC ENGINEERED -> 8145325684



CERTIFICATE OF TESTS

1801 EAST 28TH ST.
STONK: 330-438-5380

REPUBLIC STEEL

LOHAY, OH 44033
FAX: 330-438-86936/25/2014
4:16:00 PM
PAGE 1 OF 2PURCHASE ORD: 86685
PART NUMBER: FXT40AA-.375
ORDER NUMBER: 1591797 - 01
HEAT: 8196269PURCHASE ORDER DATE: 6/2/2014
ACCOUNT NUMBER: 5672-1921-01
SCHEDULE: 1100-95
REVISION: 1

CHARGE ADDRESS

JOHNSTOWN WIRE TECHNOLOGIES
124 LAUREL AVE
JOHNSTOWN, PA 15906SHIP TO
JOHNSTOWN WIRE TECHNOLOGIES
EDWARD ZAPOLA
C/O C & BL RAILROAD
TRACK 629
JOHNSTOWN, PA 15901

MATERIAL DESCRIPTION

HOT ROLLED STEEL COILS ALLOY JOHNSTOWN WIRE SPEC RW-100 REVISION DTD 04/21/04 EXC PARA 10.3 AMS
6322N EXC HARD JOHNSTOWN WIRE SPEC PART NO. FXT40AA REVISION DTD 12/31/00 MIL S 6049A & AMD 1 COND
B-1 EXC MARK & UT WAIVED AMS 2301K JOHNSTOWN WIRE SPEC RW-005 REVISION DTD 12/31/00 EXC SURFACE
DEFECTS EF-AISI-8740-H FINE GRAIN VACUUM DEGAUSS AIRCRAFT QUALITY FIXED PRACTICE QUALITY RESTRICTED
CHEMISTRY RESTRICTED MAX INCIDENTAL ELEMENTS
SIZE: RDS .3750 DIAM X COIL
RDS 9.5250MM DIAM X COIL

LADLE CHEMISTRY

C	MN	P	S	SI	CU	NI	CR
0.40	0.90	0.014	0.011	0.26	0.12	0.42	0.50
V	MO	SN	AL	B	CB	N	
0.005	0.21	0.005	0.032	0.0000	0.001	0.0062	

CALCULATED TESTS

REDUCTION RATIO 1,177.6 TO 1

SEMI - FINISHED RESULTS

GRAIN SIZE TEST ASTM A29/ASTM E112
PCE H10301 MCQUAID - 7.00000JOMINY HARDNESS TEST SAE J406/ASTM A255
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 18 20 22 24 26 28 30 32
58 58 57 56 55 54 51 48 45 42 40 38 36 35 35 34 32 32 31 30 30 29 29 29MACRO ETCH TEST ASTM E381/MIL STD 430
ETCHANT: HCL TEMPERATURE: 170
S R C
AVG 1 1 1MAGNETIC PARTICLE TEST AMS 2301 AMS2304
IND AVG IND AVG
FREQ FREQ SEV SEV
PCE 03 0 0 0 0

FINISHED SIZE RESULTS

DECARBURIZATION TEST SAE J419/ASTM E1077/JIS G0558
ETCHANT - NITAL MAGNIFICATION = 100X

SPIKE INCHES	COMPLETE INCHES	TOTAL DEPTH INCHES
PCE 7868 0.003	0	0.002

G. KRUTH
DIRECTOR QUALITY ASSURANCE

BY DEBORAH STOKES

SIKORSKY
1405
DQR

MAR 24 2015



CERTIFICATE OF TESTS

1807 EAST 28TH ST.
PHONE: 330-438-5580LORAIN, OH 44033
FAX: 330-438-5495

REPUBLIC STEEL

6/25/2014
4:16:00 PM
PAGE 2 OF 2PURCHASE ORD: 86685
PART NUMBER: FXT40AA-.375
ORDER NUMBER: 1591797 - 01
HEAT: 8196269PURCHASE ORDER DATE: 6/2/2014
ACCOUNT NUMBER: 5672-1921-01
SCHEDULE: 1100-95
REVISION: 1

CAPABLE OF SEAM DEPTH 1/4 MAX DIAMETER NOT LESS THAN .005 MAX

NOTES

CHEMICAL ANALYSIS CONFORMS TO APPLICABLE SPECS: ASTM E415, LBL10129, LBL10130, ASTM E1019, LBL10158, LBL10114, AND ASTM E1085, LBL10184, LBL10188.

NOTES (CONTINUED)

REPUBLIC STEEL HEREBY CERTIFIES THAT THE MATERIAL LISTED HEREIN HAS BEEN INSPECTED AND TESTED IN ACCORDANCE WITH THE METHODS PRESCRIBED IN THE GOVERNING SPECIFICATIONS AND BASED UPON THE RESULTS OF SUCH INSPECTION AND TESTING HAS BEEN APPROVED FOR CONFORMANCE TO THE SPECIFICATIONS.

CERTIFICATE OF TESTS SHALL NOT BE REPRODUCED EXCEPT IN FULL.

ALL TESTING HAS BEEN PERFORMED USING THE CURRENT REVISION OF THE TESTING SPECIFICATIONS.

RECORDING OF FALSE, PICTITIOUS OR FRAUDULENT STATEMENTS OR ENTRIES ON THIS DOCUMENT MAY BE PUNISHED AS A FELONY UNDER FED STATUTES TITLE 18 CHAPTER 47.

THE MATERIAL WAS NOT EXPOSED TO MERCURY OR ANY METAL ALLOY THAT IS LIQUID AT AMBIENT TEMPERATURE DURING PROCESSING OR WHILE IN OUR POSSESSION.

NO WELD OR WELD REPAIR WAS PERFORMED ON THIS MATERIAL.

THE RESULTS REPORTED RELATE ONLY TO THE ITEMS TESTED.

THE PRODUCTS SUPPLIED BY REPUBLIC STEEL DO NOT HAVE TANTALUM, TIN, TUNGSTEN, OR GOLD (COLLECTIVELY, "CONFLICT MINERALS") ADDED DURING PRODUCTION. ANY MEASURABLE AMOUNTS OF THESE ELEMENTS CONTAINED IN OUR STEEL ARE DERIVED FROM RESIDUAL MATERIALS IN THE RECYCLED SCRAP THAT WE PURCHASE FOR ELECTRIC ARC FURNACE STEEL MAKING. THEY ARE NOT NECESSARY TO THE FUNCTIONALITY OR PRODUCTION OF OUR STEEL.

SOURCE INFORMATION

MELT SOURCE: CANTON CAST ROLL MELT COUNTRY: U.S.A HOT ROLL SOURCE: LORAIN 9/10, U.S.A
MELT METHOD: EF BLOOM RED. RATIO: 1177.6

END OF DATA

CC

END OF DATA

WITH SHIPMENT 1 COPY PRINTED AT SHIPPING AREA
FAX SHIP TO 1 COPY ATTENTION EDWARD ZAPOLA
FILE 1 COPY

1-814-532-5684

G. KRUTH
DIRECTOR QUALITY ASSURANCE

BY DEBORAH STOKES

SIKORSKY
1405
DQR

7 2 4 2015





P.O. Box 025263, Miami, FL 33102-5263 • Tel: 305.925.2600 • Fax: 305.507.7191
Plant Location: 10000 N.W. 15th Terrace, Miami, FL 33172 • SITA: MIAMMCR
www.KLXAerospace.com

Shipped From: 10000 NW 15 TERRACE, MIAMI, FL 33172


Material Certification

The items set forth on the purchase order referred to below have been visually inspected and the dimensions thereof have been measured by us, and based on the aforesaid, as well as the representation made to us by the manufacturers of the items subject of such purchase order, we hereby certify that such items are in conformity with all current governmental and manufacturer's requirements, specifications, drawings, and conform to the purchase order requirements. Said items are in new condition and have not been obtained from any U.S. Government or Military source and are traceable to KLX Aerospace Solutions.

FIRM: DART AEROSPACE LTD

PURCHASE ORDER#: PO28796

LINE#	QUANTITY	U/M	PART-NUMBER	CUST REF#	LOT-NUMBER	MANUFACTURER	CCODE	MFR DATE	EXP DATE
14	400	EA	MS21043-3		M022516-000	ALCOA KAYNAR FULLERT	15653		


Jason Lewis
Senior Director, Global Quality

06/12/15

Alcoa Fastening Systems



Packing Slip



Packing Slip: 9948076029

Page: 1

Bill To: 5574
B/E AEROSPACE, INC.
P.O.BOX 025263
MIAMI FL 33102-5263
USA

Ship To: (14)
B/E AEROSPACE CONSUM MGMT
9835 NW 14TH ST
MIAMI FL 33172
USA

From:
ALCOA FASTENING SYSTEMS
AEROSPACE PRODUCTS
FULLERTON OPERATIONS
800 SOUTH STATE COLLEGE
FULLERTON CA 92831
USA

Notice to Subsequent Purchaser or Repacker.
These articles are imported. The requirements of 19 U.S.C. 1304 & CFR part 134 provide that the articles or their containers must be marked in a conspicuous place as legibly, indelibly & permanently as the nature of the article or container will permit, in such a manner as to indicate to an ultimate purchaser in the United States, the English name of the country of origin of the article.

Order Contact:

Pack	Date	Order #	Cust PO	Ship Via	Weight	Pkgs #
11/18/13	F433565	0FRW45				

Line/Rel	Item	U/M	Qty. Ordered	Qty To Pack
7-1	AAT840 H41-3	EA	625,000	82,328

C/I: MS21043-3
PO Item #: 3

Cust Date: 10/10/13
Kay Date: 10/01/13

*** TSO C-148 APPVD PART. TSO LABEL REQ'D ***

Lot: M022516-000 COO:MEXICO

Waybill: ECCN:9A991 Schedule-B Number:7318.16.0000

HTS-Code:7318.16.0060

The export classification appears above. You are responsible for all related export license requirements.

MFG C OF C CHEM & PHYS TEST REPORT REQ
** DUAL CERT TO NAS1291C3 AND LS8859-3
**

SHIP VIA : FED EX AIR
BUYER: CRISTINA SANCHEZ

PHONE:

CERTIFICATE OF CONFORMANCE

This is to certify that all items noted above were produced in conformance with the contract, drawing specifications, and other applicable documents. All required process certifications, chemicals and physical test reports are on file subject to examination. This document must not be reproduced except in full and relates only to the items tested.

Michele M. Varela
MICHELE M. VARELA
Quality Manager
Fullerton Operations

ALCOA GLOBAL FASTENERS, INC.

Kaynar Products: Cage Code 15653 • Eagle Products: Cage Code 66776 • Rosan Products: Cage code 66776

ALL CLAIMS REGARDING THIS ORDER MUST BE REPORTED TO SELLER PROMPTLY. CLAIMS FOR CREDIT OR REPLACEMENT OF PARTS MAY BE LIMITED TO THOSE PARTS FOR WHICH TRACEABILITY HAS BEEN MAINTAINED BY THE BUYER. THE SELLER'S MANUFACTURING LOT IDENTIFICATION NUMBER AND RETURN MERCHANDISE AUTHORIZATION (RMA) NUMBER MUST ACCOMPANY ALL RETURNS. ANY CLAIM BASED ON AN ALLEGED DISCREPANCY IN QUANTITY, QUALITY, ETC. BETWEEN THE GOODS ACTUALLY SHIPPED AND/OR DELIVERED UNDER THESE DOCUMENTS AND THE DESCRIPTION THEREOF IN THESE DOCUMENTS, MUST BE MADE IN WRITING TO SELLER NOT LATER THAN NINETY (90) DAYS AFTER THE SHIPPING DATE APPEARING HEREON. FOR ITEMS CERTIFIED TO BPS-N-70, ALLOY VERIFICATION HAS BEEN PERFORMED ON PARTS WITH A DATE OF MANUFACTURE ON OR AFTER JANUARY 1, 2001. THE RECORDING OF FALSE, FICTITIOUS, OR FRAUDULENT STATEMENTS OR ENTRIES ON THE CERTIFICATE MAY BE PUNISHED AS A FELONY UNDER FEDERAL LAW.

CUSTOMER'S COPY

Alcoa Fastening Systems



Packing Slip



Packing Slip: 9948076029

Page: 2

Bill To: 5574
B/E AEROSPACE, INC.
P.O. BOX 025263
MIAMI FL 33102-5263
USA

Ship To: (14)
B/E AEROSPACE CONSUM MGMT
9835 NW 14TH ST
MIAMI FL 33172
USA

From:
ALCOA FASTENING SYSTEMS
AEROSPACE PRODUCTS
FULLERTON OPERATIONS
800 SOUTH STATE COLLEGE
FULLERTON CA 92831
USA

Order Contact:

Pack Date	Order #	Cust PO	Ship Via	Weight	Pkgs #
11/18/13	F433565	0FRW45			

Line/Rel	Item	Qty	Ordered	Qty To Pack
----------	------	-----	---------	-------------

MATERIAL COMPLIES WITH DEARS 252 25-700
9 PREFERENCE FOR DOMESTIC SPECIALTY
METALS" WITH ITS ALTERNATE 1.

***SHIP VIA FEDX AIR COLLECT ACCT# 0331-
0149-0 IF 150 LBS OR MORE:SHIP FED
EX FREIGHT ECONOMY COLLECT ACCT# 018757.

DO NOT SHIP BY ANY OTHER WITHOUT PROPER
WRITTEN AUTHORIZATION.

ALLOWABLE SHIPPING TOLERANCE = +0%-0 %.
** BAR CODE PER QAP 33 CLAUSE P REQUIRED

** QAP 33.0 REV F CLAUSES: A,A.1,B,C,E,H
,P,U,V. CLAUSE A.3 GENERAL TERMS
APPLIES.

*** PER JESSICA 8/24 PULL IN MARCH & JUN
E SCH FROM 2013 TO ASAP VB 8/24
chem & phys certs

CERTIFICATE OF CONFORMANCE

This is to certify that all items noted above were produced in conformance with the contract, drawing specifications, and other applicable documents. All required process certifications, chemicals and physical test reports are on file subject to examination. This document must not be reproduced except in full and relates only to the items tested.

MICHELE M. VARELA
Quality Manager
Fullerton Operations

ALCOA GLOBAL FASTENERS, INC.

Keynar Products: Cage Code 15653 • Eagle Products: Cage Code 66776 • Rosan Products: Cage code 66776

ALL CLAIMS REGARDING THIS ORDER MUST BE REPORTED TO SELLER PROMPTLY. CLAIMS FOR CREDIT OR REPLACEMENT OF PARTS MAY BE LIMITED TO THOSE PARTS FOR WHICH TRACEABILITY HAS BEEN MAINTAINED BY THE BUYER. THE SELLER'S MANUFACTURING LOT IDENTIFICATION NUMBER AND RETURN MERCHANDISE AUTHORIZATION (RMA) NUMBER MUST ACCOMPANY ALL RETURNS. ANY CLAIM BASED ON AN ALLEGED DISCREPANCY IN QUANTITY, QUALITY, ETC. BETWEEN THE GOODS ACTUALLY SHIPPED AND/OR DELIVERED UNDER THESE DOCUMENTS AND THE DESCRIPTION THEREOF IN THESE DOCUMENTS, MUST BE MADE IN WRITING TO SELLER NOT LATER THAN NINETY (90) DAYS AFTER THE SHIPPING DATE APPEARING HEREON. FOR ITEMS CERTIFIED TO BPS-N-70, ALLOY VERIFICATION HAS BEEN PERFORMED ON PARTS WITH A DATE OF MANUFACTURE ON OR AFTER JANUARY 1, 2001. THE RECORDING OF FALSE, FICTITIOUS, OR FRAUDULENT STATEMENTS OR ENTRIES ON THE CERTIFICATE MAY BE PUNISHED AS A FELONY UNDER FEDERAL LAW.

CUSTOMER'S COPY

**Alcoa
Fastening
Systems**Aerospace Products
Fullerton Operations
800 S STATE COLLEGE BLVD
FULLERTON, CA 92831**TEST REPORT**

NO.

8193073

Page 1 of 3

Lot No.

M022516-000

Supplier Item No.

AAT840

Supplier Part No.

H41-3

Interchange Part No.

525-595-9005 Rev. N

Interchange Part No.

GTS297-4 Rev. 3

Interchange Part No.

H41-3

Interchange Part No.

LS8859-3 Rev. A

Interchange Part No.

MS21043-3 Rev. 3

Interchange Part No.

N8862175/E Rev. 5a

Interchange Part No.

NAS1291A3 Rev. 13

Interchange Part No.

NAS1291C3 Rev. 13

Interchange Part No.

Manufactured Quantity

89574

Mfg. Date

05/22/13

Generic Description

NUT 6 POINT

Thread Size

.1900-32

PLATE/COAT

AMS 2410 REV. K

HEAT TREAT

AMS-H-6875 REV. B

Non-Destruct

ASTM E1417 REV. 11 E1 SAMPLE

PERFORMANCE

NASM25027 REV. 1

Material Spec. #

AMS 5731-L

Mill Heat No.

970239

Control Heat No.

AA18989

Material Supplier

CARPENTER TECHNOLOGY CORP

Special Process Requirements:

**THREADS AND GAUGING PER AS8879 Rev.DR12
and ASME B1.3M SYS. 22****MIN EQUALS BKWY MAX EQUALS INST.***** CONFORMS TO AMS5732J AFTER HT TREAT****MAGNETIC PERMEABILITY LESS THAN 2.0****TEST RESULTS**

TEST No. Description	UOM	SAMPLE Number	RESULT Cycle	MINIMUM Value	MAXIMUM Value	PASS/ Fail	MINIMUM Requirement	MAXIMUM Requirement
1 - 010 TORQUE TEST 18 lbs max install./2.0 lbs min bkwy.	IN#	1	1	12.40	12.25		2.00	18.00
			7	8.95	9.55			
			15	8.65	7.80			
		2	1	7.20	7.35			
			7	4.50	3.85			
			15	4.80	4.20			
		3	1	13.85	13.65			
			7	13.70	13.05			
			15	12.90	12.45			
		4	1	12.50	12.35			
			7	10.55	11.45			
			15	11.05	10.90			
		5	1	9.35	8.75			
			7	9.35	9.30			
			15	9.75	10.05			
		6	1	6.70	6.85			
			7	7.05	5.80			
			15	5.60	5.25			

TEST RESULTS - Continued on next page.**THIS REPORT MUST NOT BE REPRODUCED EXCEPT IN FULL AND RELATES ONLY TO THE ITEMS TESTED**

The product identified on this Certificate has been manufactured, tested and unless otherwise noted, conforms in all respects to the applicable drawings, specifications and standards. Complete reports of physical and chemical tests are on file for examination. If no specified customer quality level is required, goods conform to sellers quality level. All Damages Exceeding Price are Excluded. For items certified to BPS-N-70 alloy verification has been performed on parts with a date of manufacturing on or after January 1, 2001. Quality system sampling plan conforms to the requirement of QAP EQ001, QAP EQ002, QAP EQ003. The recording of false, fictitious, or fraudulent statements or entries on the certificate may be punished as a felony under federal law.

ALCOA GLOBAL FASTENERS, INC.

MICHELE M. VARELA, QA MGR.

SHIPPER#: 9948076029

Rev. 12/02 Form 11198

This document shall not be reproduced, except in full, without the written approval of AFS.

**Alcoa
Fastening
Systems**Aerospace Products
Fullerton Operations
800 S. STATE COLLEGE BLVD
FULLERTON, CA 92831**TEST REPORT**

NO.

8193073

Page 2 of 3

Lot No.

M022516-000

Supplier Item No.

AAT840

Supplier Part No.

H41-3**TEST RESULTS - Continued from previous page.**

----- TEST ----- No. Description	UOM	SAMPLE Number	RESULT Cycle	MINIMUM Value	MAXIMUM Value	PASS/ Fail	MINIMUM Requirement	MAXIMUM Requirement
2 - 020 TENSILE TEST BOLT AND NUT THREAD STRIPPED	LBS	7	1	6.35	6.40			
			7	5.50	5.50			
			15	5.30	4.75			
		8	1	11.00	12.80			
			7	9.05	9.90			
			15	9.55	10.30			
		9	1	7.85	7.80			
			7	8.00	7.00			
			15	7.80	7.05			
		10	1	8.70	8.65			
			7	7.05	6.95			
			15	7.15	6.55			
		11	1	8.95	9.10			
			7	8.55	8.35			
			15	8.45	8.40			
		12	1	11.30	11.50			
			7	10.85	9.60			
			15	8.90	8.15			
		13	1	9.80	9.00			
			7	9.95	10.70			
			15	9.55	10.20			
		14	1	8.75	8.35			
			7	5.65	4.65			
			15	5.50	4.80			
		15	1	9.00	9.25			
			7	9.55	9.20			
			15	5.50	9.10			
		1	1	4310.00			2460.00	
		2	1	2600.00				
		3	1	2600.00				
		4	1	2600.00				
		5	1	2600.00				
		6	1	2600.00				
		7	1	2600.00				
		8	1	2600.00				
		9	1	2600.00				
		10	1	2600.00				
		11	1	2600.00				
		12	1	2600.00				
		13	1	2600.00				

TEST RESULTS - Continued on next page.**THIS REPORT MUST NOT BE REPRODUCED EXCEPT IN FULL AND RELATES ONLY TO THE ITEMS TESTED**

The product identified on this Certificate has been manufactured, tested and unless otherwise noted, conforms in all respects to the applicable drawings, specifications and standards. Complete reports of physical and chemical tests are on file for examination. If no specified customer quality level is required, goods conform to sellers quality level. All Damages Exceeding Price are Excluded. For items certified to BPS-N-70 alloy verification has been performed on parts with a date of manufacturing on or after January 1, 2001. Quality system sampling plan conforms to the requirement of QAP EQ001, QAP EQ002, QAP EQ003. The recording of false, fictitious, or fraudulent statements or entries on the certificate may be punished as a felony under federal law.

MICHELE M. VARELA, QA MGR.

ALCOA GLOBAL FASTENERS, INC.

SHIPPER#: 9948076029

Rev. 12/02 Form 11109

This document shall not be reproduced, except in full, without the written approval of AFS.



P.O. Box 025263, Miami, FL 33102-5263 • Tel: 305.925.2600 • Fax: 305.507.7191
Plant Location: 10000 N.W. 15th Terrace, Miami, FL 33172 • SITA: MIAMMCR
www.KLXaerospace.com

Shipped From: 10000 NW 15 TERRACE, MIAMI, FL 33172


Material Certification

The items set forth on the purchase order referred to below have been visually inspected and the dimensions thereof have been measured by us, and based on the aforesaid, as well as the representation made to us by the manufacturers of the items subject of such purchase order, we hereby certify that such items are in conformity with all current governmental and manufacturer's requirements, specifications, drawings, and conform to the purchase order requirements. Said items are in new condition and have not been obtained from any U.S. Government or Military source and are traceable to KLX Aerospace Solutions.

FIRM: DART AEROSPACE LTD

PURCHASE ORDER#: PO28796

LNE#	QUANTITY	U/M	PART-NUMBER	CUST REF#	LOT-NUMBER	MANUFACTURER	CCODE	MFR DATE	EXP DATE
12	500	EA	MS20600AD4W4		88019555	CHERRY AEROSPACE SAN	11815		



Jason Lewis
Senior Director, Global Quality

06/12/15

Inv # 06/12/15



CHERRY®
AEROSPACE
SPS Fastener Division, a PCC Company

Cherry Aerospace
1224 East Warner Avenue
Post Office Box 2157
Santa Ana, CA 92707-0157
USA



PACKING LIST

Order No: S0382389
Order Date: 03/12/14
Print Date: 02/05/15

Page: 1



Sold-To: 10015341

Ship-To: 10043053

S O L D T O	KLX INC 10000 NW 15TH TERRACE MIAMI, FL 33172 USA
----------------------------	--

S H I P T O	KLX AEROSPACE SOLUTIONS KLX INC. 9835 NW 14TH ST MIAMI, FL 33172 USA
----------------------------	--

Salesperson (s):110

Purchase Order: 0WWT96

Credit Terms: NET 30
Net 30

Ship Via: YRC

FOB: Origin - Collect

Remarks:

IF UNDER 150# SHIP FEDEX GROUND COLLECT ACCOUNT# 0331-0149-0
IF OVER 150# SHIP FED EX NATIONAL ACCOUNT# 018757 - DO NOT INSURE
DO NOT PREPAY AND ADD TO ANY OF THE ABOVE METHODS
DO NOT SHIP EARLIER THAN TWO (2) WEEKS PRIOR TO DUE DATE, UNLESS SPECIFIED.

BRITISH AEROSPACE APPROVAL# BAe/AG/30158/MAA to BAe/AG/QC/SC1 PART 3
AIRBUS APPROVAL# 30114

GOODS OF UNITED STATES ORIGIN

TEST REPORTS ENCLOSED

ECCN: EAR99

DO NOT DESTROY***

*IF APPLICABLE, PART MEETS DFARS CLAUSE 252.225-7009 ALT I
*PREFERENCE FOR DOMESTIC SPECIALTY METALS

RELEASE# VIO3OWWT96

Unless otherwise specified on this order, Cherry will manufacture and
certify parts to the part number's latest revision. Latest revisions are
shown at <https://bizpartner.cherryaerospace.com/partrevisions.htm> under
"Part Number Revision List".

INCORRECT AND UNAVAILABLE PART NUMBERS WILL BE LINED OUT ON PO
CHERRY AEROSPACE DOES NOT ACCEPT CLAUSE V IN REGARDS TO ISO17025- CHERRY
IS COMPLIANT TO NADCAP REQUIREMENTS ONLY

Ln	Item Number	Site T Location	Lot/Serial	Qty Open Qty to Ship	UM	Promised Shipped
2	CR9163-4-04		1600		EA	03/06/15



These commodities, technology or software were exported from the United States in accordance with the Export Administration Regulations. Diversion contrary to US law is prohibited

Packing List



CHERRY®
AEROSPACE
SPS Fastener Division, a PCC Company

Cherry Aerospace
1224 East Warner Avenue
Post Office Box 2157
Santa Ana, CA 92707-0157
USA



PACKING LIST

Order No: SO382389
Order Date: 03/12/14
Print Date: 02/05/15

Page: 2

Sold-To: 10015341


Ship-To: 10043053

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KLX INC
10000 NW 15TH TERRACE
MIAMI, FL 33172
USA

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KLX AEROSPACE SOLUTIONS
KLX INC.
9835 NW 14TH ST
MIAMI, FL 33172
USA

Ln	Item Number	Site T Location Lot/Serial	Qty Open Qty to Ship	UM	Promised Shipped
2	CR9163-4-04 Customer Item: MS20600AD4W4 	F0806 88019555	18600.0		()

TEST REPORTS ENCLOSED
DO NOT DESTROY

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Packing List



CHERRY®
AEROSPACE
 SPS Fastener Division, a PCC Company

Cherry Aerospace
 1224 East Warner Avenue
 Post Office Box 2157
 Santa Ana, CA 92707-0157
 USA



PACKING LIST

Order No: S0382389
 Order Date: 03/12/14
 Print Date: 02/05/15

Page: 1



Sold-To: 10015341

Ship-To: 10043053

S O L D T O	KLX INC
	10000 NW 15TH TERRACE
	MIAMI, FL 33172
	USA

S H I P T O	KLX AEROSPACE SOLUTIONS
	KLX INC.
	9835 NW 14TH ST
	MIAMI, FL 33172
	USA

Salesperson (s):110

Purchase Order: 0WWT96

Credit Terms: NET 30
 Net 30

Ship Via: YRC

FOB: Origin - Collect

Remarks:

IF UNDER 150# SHIP FEDEX GROUND COLLECT ACCOUNT# 0331-0149-0
 IF OVER 150# SHIP FED EX NATIONAL ACCOUNT# 018757 - DO NOT INSURE
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 BRITISH AEROSPACE APPROVAL# BAe/AG/30158/MAA to BAe/AG/QC/SC1 PART 3
 AIRBUS APPROVAL# 30114

GOODS OF UNITED STATES ORIGIN

TEST REPORTS ENCLOSED

ECCN: EAR99

DO NOT DESTROY

 *IF APPLICABLE, PART MEETS DFARS CLAUSE 252.225-7009 ALT I
 *PREFERENCE FOR DOMESTIC SPECIALTY METALS

RELEASE# VIO3OWWT96

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 shown at <https://bizpartner.cherryaerospace.com/partrevisions.htm> under
 "Part Number Revision List".

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 CHERRY AEROSPACE DOES NOT ACCEPT CLAUSE V IN REGARDS TO ISO17025- CHERRY
 IS COMPLIANT TO NADCAP REQUIREMENTS ONLY

Ln	Item Number	Site T LocationLot/Serial	Qty Open Qty to Ship	UM	Promised Shipped	
2	CR9163-4-04	1600		EA	03/06/15	

These commodities, technology or software were exported from the United States in accordance with the Export Administration Regulations. Diversion contrary to US law is prohibited

CERTIFICATION

ATTENTION: PURCHASING DEPARTMENT

The material and/or parts we are furnishing in this shipment (as shown above) on the subject Purchase Order conform to the order and applicable specifications, Evidence that the material and/or parts meet the specifications and results of all tests for each lot affected will be in our files and will be available for your inspection at any reasonable time.

Quality Assurance Representative

Signed

SIM NGUYEN



CHERRY®
AEROSPACE
SPS Fastener Division, a PCC Company

Cherry Aerospace
1224 East Warner Avenue
Post Office Box 2157
Santa Ana, CA 92707-0157
USA



PACKING LIST



Order No: S0382389
Order Date: 03/12/14
Print Date: 02/05/15

Page: 2

Sold-To: 10015341

Ship-To: 10043053

S O L D T O	KLX INC
	10000 NW 15TH TERRACE
	MIAMI, FL 33172
	USA

S H I P T O	KLX AEROSPACE SOLUTIONS
	KLX INC.
	9835 NW 14TH ST
	MIAMI, FL 33172
	USA

Ln	Item Number	Site T Location Lot/Serial	Qty Open Qty to Ship	UM	Promised Shipped
2	CR9163-4-04 Customer Item: MS20600AD4W4 F0806 88019555		18600.0		()



TEST REPORTS ENCLOSED
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CERTIFICATION

ATTENTION: PURCHASING DEPARTMENT

Quality Assurance Representative

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Signed

SIM NGUYEN

**CHERRY** AEROSPACE

SPS Fastener Division, a PCC Company



Accredited

Nadcap

Chemical Processing

Heat Treating

ISO/IEC 17025

Material Testing Lab

1224 East Warner Avenue
Santa Ana, CA 92707-0157**Final Inspection & Test Report**
Cherry® Rivet**An ISO9001 and AS9100 registered company. OASIS #6111041606**

Part Numbers	Rev	Proc. Spec.	Rev	Lot I.D. No.: 88019555 Lot Size: 19,000 MFG. Date: February 04, 2015
CR9163-4-04	K	MIL-R-7885	D2	
** See 2nd Page for the Customer Parts				

ASSEMBLY DATA

TYPE	ID #	CERT #	MATERIAL	FINISH	LUBE
Rivet	88019555	A75148	2117 ALUM ALLOY	MIL-C-5541	Par-90
Stem	87924517	A74848	2017 ALUM ALLOY	MIL-C-5541	Par-90

W.O. #: 11290162

Final Lube: None

QUALITY CONFORMANCE/ACCEPTANCE RESULTS

MIN REQ'D SAMPLE SIZE SPECS	INSTALLED SHEAR		SPINDLE RETENSION	
	370		15	
	9		9	
RESULTS	513	517	85	127
	522		101	
	519		106	
	516		91	
	515		100	
	522		24	
LOAD VALUES	513		96	
IN POUNDS	508		82	

<u>PCS.</u>	<u>ITEM</u>	<u>STATUS</u>	<u>PCS.</u>	<u>ITEM</u>	<u>STATUS</u>
<u>20</u>	EXAMINATION	<u>PASS</u>	<u>13</u>	INSTALLATION (Min and Max Grips)	<u>PASS</u>

Comments:

Blind Fastener

The parts contained in this shipment have been manufactured and inspected in accordance with TSO-C148. The conditions and tests required for TSO approval of this article are minimum performance standards. Aircraft fasteners approved under this TSO are not necessarily interchangeable with other aircraft fasteners approved under this TSO. Fasteners of similar dimensional properties may have widely varying performance and metallurgical properties. Substitution of parts may only be done if acceptable to or approved by the Administrator.

Tr. Rev.: -
Rev. Date: 2/4/2015

Inspector
V Iriarte


Insp. Control #:

This test report shall not be reproduced except in full, without the written approval of the laboratory.
The recording of false, fictitious, or fraudulent statement or entries on the certificate may be punished as a felony under Federal law.

BENEKE

Product Certification And Testing Report

Customer:

CHERRY AEROSPACE LLC
ATTN: ACCTS. PAYABLE
1224 EAST WARNER AVENUE
P.O. BOX 2157
SANTA ANA CA 92707-0157

Date >> 7/7/2014

Customer PO No.	BWC Lot No.	Date Shipped:
PO167334	26389	7/7/2014
Cust Item ID : M262.1230		

BWC Item No.
2H1230813041A01

Description:

.123" DIA. + -.0005" 4F 2117 - H13
#4 FINISH, ALUMINUM COLD HEADING WIRE X 22"
BLOCKWOUND 100# COILS.

Specifications:

CUST SPEC M-262 REV. F
FED SPEC QQ-A-430 REV. C

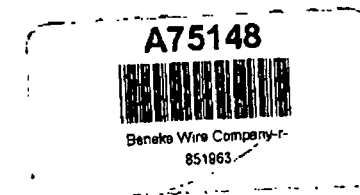
Chemical Limits

Alloy	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Others Each	Others Total	Aluminum Remainder	Case No.	lbs	Diameter (in)	Tensile (psi)	Yield (psi)	Peak Load (lbs)	Grain Size
2117	.8	.7	2.2-3.0	.20	.20-.50	.10	.25		.05	.15								
851963	.39	.40	2.8	.14	.40	.06	.11											
													42647-1	230	0.1230	29,740.0	353.4	

Total Weight: 230



JUL 16 2014



Beneke Wire Company

WE CERTIFY THAT SAMPLES REPRESENTING THE MATERIAL COVERED IN THIS REPORT HAVE BEEN INSPECTED AND FOUND TO MEET THE COMPOSITION LIMITS AND MECHANICAL PROPERTIES SHOWN ABOVE. ANY WARRANTY IS LIMITED TO THAT SHOWN ON BENEKE WIRE COMPANY'S STANDARD TERMS AND CONDITIONS OF SALE.

5540 National Turnpike

Louisville, KY 40214

Authorized
Signature

Shannon King, Plant Metallurgist

Phone: (502) 367-6434

KAISER ALUMINUM

FABRICATED PRODUCTS

Kaiser Aluminum Fabricated Products, LLC
600 Kaiser Drive
Heath, OH 43056-1088
740-522-1151

Best in Class

CERTIFIED TEST REPORT

<http://Online.KaiserAluminum.com>

Miscellaneous Notes

Made in USA

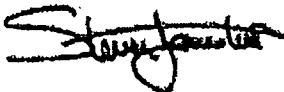
Chemical exceptions Fe 0.30-0.7 Mercury is not a normal contaminant in aluminum alloys. Neither mercury nor any of its compounds were utilized by Kaiser Aluminum in the manufacture of this material. Actual (Act) chemical composition is from representative samples taken during the ingot casting process. Independent chemical analysis will vary from these values because of natural variation in the process and testing error. This test report shall not be reproduced, except in full, without the written approval of Kaiser Aluminum. The recording of false, fictitious, or fraudulent statements or entries on the certificate may be punished as a felony under federal law. Chemical analysis performed in accordance with ASTM E 1251-11. The Newark facility is AS9100C:2009 approved. The Newark Laboratory is NADCAP approved for chemical testing (OES).

The products you inquired and ordered are not governed by any applicable industry standard or custom specifications. They are produced, tested and released as such. By placing an order, you acknowledge and accept the full responsibility and liability for their fitness for the intended end use or end uses.

CERTIFICATION

Kaiser Aluminum Fabricated Products, LLP ("Kaiser") hereby certifies that metal shipped under this order has been inspected and tested and found in conformance with the applicable specifications forming a part of the description set forth in Kaiser's sales order acknowledgement form. Any warranty is limited to that shown on Kaiser's standard general terms and conditions.

Steven J. Tua, Technical Manager



JUL 16 2014



A75148

Berkel Wire Company
851953

Plant Serial: 33279

Kaiser Order Number: 172555318

Line Item: 1

BENEKE

Product Certification And Testing Report

Customer:

CHERRY AEROSPACE LLC
ATTN: ACCTS. PAYABLE
1224 EAST WARNER AVENUE
P.O. BOX 2157

SANTA ANA

CA 92707-0157

Date >> 5/5/2014

Customer PO No.	BWC Lot No.	Date Shipped:
PO164957 ✓	26036	5/5/2014
Cust Item ID : M051.0980		

BWC Item No.
2F09808T3741A01

Description:
.098" DIA. +- .0005" 4F 2017 - T37
#4 FINISH, ALUMINUM COLD HEADING WIRE X 22"
BLOCKWOUND 100# COILS.

Specifications:

CUST SPEC M-51 REV. L-
FED SPEC QQ-A-430 ✓ REV. C

Chemical Limits

Alloy	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Others Each	Others Total	Aluminum Remainder	Case No.	lbs	Diameter (in)	Tensile (psi)	Yield (psi)	Peak Load (lbs)	EL %	Grain Size
2017	.20 - .8	-.7	3.5 - 4.5	.40 - 1.0	.40 - .8	-.10	-.25	-.15	.05	.15									
852736 ✓	.36 ✓	.29 ✓	3.7 ✓	.61 ✓	.60 ✓	.02 ✓	.18 ✓	.02 ✓											

42062-1

371

0.0983

68,040.0 ✓

517.0

Total Weight: 371

A74848



Beneke Wire Company-r-
852736

MAY 14 2014



Beneke Wire Company

WE CERTIFY THAT SAMPLES REPRESENTING THE MATERIAL COVERED IN THIS REPORT HAVE BEEN INSPECTED AND FOUND TO MEET THE COMPOSITION LIMITS AND MECHANICAL PROPERTIES SHOWN ABOVE. ANY WARRANTY IS LIMITED TO THAT SHOWN ON BENEKE WIRE COMPANY'S STANDARD TERMS AND CONDITIONS OF SALE.

5540 National Turnpike

Louisville, KY 40214

Authorized
Signature

Shannon King, Plant Metallurgist

Phone: (502) 367-6434

KAISER ALUMINUM FABRICATED PRODUCTS

Best in Class

CERTIFIED TEST REPORT

<http://Online.KaiserAluminum.com>

Kaiser Aluminum Fabricated Products, LLC
600 Kaiser Drive
Heath, OH 43056-1088
740-522-1151

CUSTOMER PO NUMBER:		CUSTOMER PART NUMBER:		PRODUCT DESCRIPTION:	
				ALY-JUMBO	
KAISER ORDER NUMBER:	LINE ITEM:	SHIP DATE:	ALLOY:	TEMPER:	
172562498	1	03/14/2014	2017		
WEIGHT SHIPPED:	QUANTITY:	BL NUMBER:	DIAM/DAF/THKNS:	WIDTH:	LENGTH:
2051 lbs.	9 pcs.	9367		0.000 in.	0.0 in.
SHIP TO:			SOLD TO:		
BENEKE WIRE COMPANY 5540 NATIONAL TURNPIKE LOUISVILLE, KY 40214			BENEKE WIRE COMPANY 5540 NATIONAL TURN PIKE LOUISVILLE, KY 40214		

Test Code: 2415

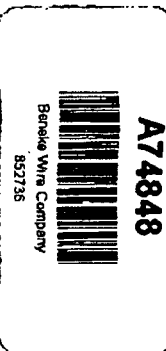
Actual Physical Properties

Lot No.	No. Tests		WGE %	WGU ksi	WGY ksi
852736 ✓	1	MIN	30.0	28.4	15.9
		MAX	30.0	28.4	15.9

Chemical Composition, WT. % (Aluminum Remainder)

Lot Cast/Drop ChemID		Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Zr
852736										
46-2F2	Act.	0.36	0.29	3.7	0.61	0.60	0.02	0.18	0.02	0.00
187632										

Chemical	Min	0.20		3.5	0.40	0.40				
Limits	Max	0.8	0.7	4.5	1.0	0.8	0.10	0.25	0.15	0.10
	Others	Each	0.05	Max		Total	0.15	Max		



MAY 14 2014

Plant Serial: 35436
Kaiser Order Number: 172562498
Line Item: 1

KAISER ALUMINUM

FABRICATED PRODUCTS

Best in Class

CERTIFIED TEST REPORT

<http://Online.KaiserAluminum.com>

Kaiser Aluminum Fabricated Products, LLC

600 Kaiser Drive

Heath, OH 43056-1088

740-522-1151

CUSTOMER PO NUMBER:		CUSTOMER PART NUMBER:		PRODUCT DESCRIPTION:	
				ALY-JUMBO	
KAISER ORDER NUMBER:	LINE ITEM:	SHIP DATE:	ALLOY:	TEMPER:	
172555318	1	10/25/2013	2117		
WEIGHT SHIPPED:	QUANTITY:	BA NUMBER:	DIAM/DA/THKNS:	WIDTH:	LENGTH:
6241 lbs.	23 pcs.	8273		0.000 in.	0.0 in.
SHIP TO:			SOLD TO:		
BENEKE WIRE COMPANY 5540 NATIONAL TURNPIKE LOUISVILLE, KY 40214			BENEKE WIRE COMPANY 5540 NATIONAL TURN PIKE LOUISVILLE, KY 40214		

Test Code: 8000

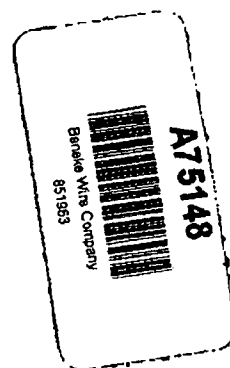
Actual Physical Properties

Lot No.	No. Tests	WCU
		ksi
851963	1 MIN	22.1
	MAX	22.1

Chemical Composition, WT. % (Aluminum Remainder)

Lot		Si	Fe	Cu	Mn	Mg	Cr	Zn
Cast/Drop								
ChemID								
851963								
78-5F2	Act.	0.39	0.40	2.8	0.14	0.40	0.06	0.11
184508								
Chemical	Min			2.2		0.20		
Limits	Max	0.8	0.7	3.0	0.20	0.50	0.10	0.25
	Others Each	0.05		Max		Total	0.15	Max

JUL 16 2014



Plant Serial: 33279

Kaiser Order Number: 172555318

Line Item: 1



CHERRY AEROSPACE
SPS Fastener Division, a PCC Company

1224 East Warner Avenue
Santa Ana, CA 92707-0157



Accredited
NadcapTM

Chemical Processing
Heat Treating
ISO/IEC 17025
Material Testing Lab

Final Inspection & Test Report Cherry® Rivet

An ISO9001 and AS9100 registered company. OASIS #6111041606

Lot I.D. No.: 88019555

Rev: -

Customer Parts List

<u>Customer Part Number</u>	<u>Rev</u>	<u>Proc. Spec.</u>	<u>Rev</u>
MS20600AD4W4	2	MIL-R-7885	D2



P.O. Box 025263, Miami, FL 33102-5263 • Tel: 305.925.2600 • Fax: 305.507.7191
Plant Location: 10000 N.W. 15th Terrace, Miami, FL 33172 • SITA: MIAMMCR
www.KLXaerospace.com

Shipped From: 10000 NW 15 TERRACE, MIAMI, FL 33172


Material Certification

The items set forth on the purchase order referred to below have been visually inspected and the dimensions thereof have been measured by us, and based on the aforesaid, as well as the representation made to us by the manufacturers of the items subject of such purchase order, we hereby certify that such items are in conformity with all current governmental and manufacturer's requirements, specifications, drawings, and conform to the purchase order requirements. Said items are in new condition and have not been obtained from any U.S. Government or Military source and are traceable to KLX Aerospace Solutions.

FIRM: DART AEROSPACE LTD

PURCHASE ORDER#: PO28796

LNE#	QUANTITY	U/M	PART-NUMBER	CUST REF#	LOT-NUMBER	MANUFACTURER	CCODE	MFR DATE	EXP DATE
13	100	EA	MS20601AD4W3		87971282	CHERRY AEROSPACE SAN	11815		


Jason Lewis
Senior Director, Global Quality

06/12/15

Inv # 06/12/15



CHERRY®
AEROSPACE
SPS Fastener Division, a PCC Company

Cherry Aerospace
1224 East Warner Avenue
Post Office Box 2157
Santa Ana, CA 92707-0157
USA



PACKING LIST

Order No: S0384202 Page: 1
Order Date: 06/06/14
Print Date: 12/30/14



Sold-To: 10015341

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KLX AEROSPACE SOLUTIONS
PO BOX 025263
MIAMI, FL 33102-5263
USA



Ship-To: 10043053

S
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T
O

KLX AEROSPACE SOLUTIONS
9835 NW 14TH ST
MIAMI, FL 33172
USA

Salesperson (s):110

Purchase Order: 0YNB23

Credit Terms: NET 30
Net 30

Ship Via: FED EX NATIONAL CL
FOB: Origin - Collect

Remarks:

IF UNDER 150# SHIP FEDEX GROUND COLLECT ACCOUNT# 0331-0149-0
IF OVER 150# SHIP FED EX NATIONAL ACCOUNT# 018757 - DO NOT INSURE
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AIRBUS APPROVAL# 30114

GOODS OF UNITED STATES ORIGIN

ECCN: EAR99

*IF APPLICABLE, PART MEETS DFARS CLAUSE 252.225-7009 ALT I
*PREFERENCE FOR DOMESTIC SPECIALTY METALS

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INCORRECT AND UNAVAILABLE PART NUMBERS WILL BE LINED OUT ON PO
CHERRY AEROSPACE DOES NOT ACCEPT CLAUSE V IN REGARDS TO ISO17025- CHERRY
IS COMPLIANT TO NADCAP REQUIREMENTS ONLY

Test Reports Enclosed
Do Not Destroy

Ln	Item Number	Site		Qty Open Qty to Ship	UM	Promised Shipped	
		T	Location/Lot/Serial				
2	CR9162-4-03		1600		EA	01/16/15	
	Customer Item: MS20601AD4W3						
		K0202	87971282	3700.0		()	

These commodities, technology or software were exported from the United States in accordance with the Export Administration Regulations. Diversion contrary to US law is prohibited

CERTIFICATION

ATTENTION: PURCHASING DEPARTMENT

Quality Assurance Representative

The material and/or parts we are furnishing in this shipment (as shown above) on the subject Purchase Order conform to the order and applicable specifications. Evidence that the material and/or parts meet the specifications and results of all tests for each lot affected will be in our files and will be available for your inspection at any reasonable time.

Signed

Dione Roca



CHERRY AEROSPACE
SPS Fastener Division, a PCC Company

1224 East Warner Avenue
Santa Ana, CA 92707-0157



Accredited
Nadcap

Chemical Processing
Heat Treating
ISO/IEC 17025
Material Testing Lab

Final Inspection & Test Report Cherry® Rivet

An ISO9001 and AS9100 registered company. OASIS #6111041606

Part Numbers	Rev	Proc. Spec.	Rev
CR9162-4-03	P	MIL-R-7885	D2
** See 2nd Page for the Customer Parts			

Lot I.D. No.: **87971282**

Lot Size: **23,000**

MFG. Date: **October 02, 2014**

ASSEMBLY DATA

TYPE	ID #	CERT #	MATERIAL	FINISH	LUBE
Rivet	87971282	A74728	2117/ QQ-A-430	MIL-C-5541	Par-90
Stem	87971286	A74944	2017/ QQ-A-430	MIL-C-5541	None

W.O. #: 5553305

Final Lube: None

QUALITY CONFORMANCE/ACCEPTANCE RESULTS

MIN REQ'D	INSTALLED SHEAR		SPINDLE RETENSION	
	240		15	
SAMPLE SIZE	9		9	
SPECS			UnLocked	
RESULTS	466	473	29	43
	470		24	
	476		29	
	470		37	
	471		30	
	469		30	
	477		33	
LOAD VALUES IN POUNDS	463		22	

PCS.	ITEM	STATUS	PCS.	ITEM	STATUS
<u>20</u>	EXAMINATION	<u>PASS</u>	<u>13</u>	INSTALLATION (Min and Max Grips)	<u>PASS</u>

Comments:

Blind Fastener
Refer to email from J. John Park Standards Engineer Association to Soheil Eshraghi.
Dated on 1/25/2012 regarding the B diameter tolerance to be +/-0.004.

The parts contained in this shipment have been manufactured and inspected in accordance with TSO-C148. The conditions and tests required for TSO approval of this article are minimum performance standards. Aircraft fasteners approved under this TSO are not necessarily interchangeable with other aircraft fasteners approved under this TSO. Fasteners of similar dimensional properties may have widely varying performance and metallurgical properties. Substitution of parts may only be done if acceptable to or approved by the Administrator.

Tr. Rev.: 1
Rev. Date: 10/3/2014

Inspector
S Nguyen



Insp. Control #:

This test report shall not be reproduced except in full, without the written approval of the laboratory.
The recording of false, fictitious, or fraudulent statement or entries on the certificate may be punished as a felony under Federal law.

KAISER ALUMINUM

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<http://Online.KaiserAluminum.com>

Kaiser Aluminum Fabricated Products, LLC
600 Kaiser Drive
Heath, OH 43056-1088
740-522-1151

Miscellaneous Notes

Made in USA

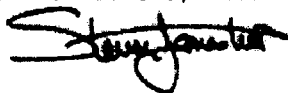
Chemical exceptions Fe 0.30-0.7 Mercury is not a normal contaminant in aluminum alloys. Neither mercury nor any of its compounds were utilized by Kaiser Aluminum in the manufacture of this material. Actual (Act) chemical composition is from representative samples taken during the ingot casting process. Independent chemical analysis will vary from these values because of natural variation in the process and testing error. This test report shall not be reproduced, except in full, without the written approval of Kaiser Aluminum. The recording of false, fictitious, or fraudulent statements or entries on the certificate may be punished as a felony under federal law. Chemical analysis performed in accordance with ASTM E 1251-11. The Newark facility is AS9100C:2009 approved. The Newark Laboratory is NADCAP approved for chemical testing (OES).

The products you inquired and ordered are not governed by any applicable industry standard or custom specifications. They are produced, tested and released as such. By placing an order, you acknowledge and accept the full responsibility and liability for their fitness for the intended end use or end uses.

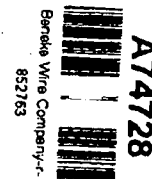
CERTIFICATION

Kaiser Aluminum Fabricated Products, LLP ("Kaiser") hereby certifies that metal shipped under this order has been inspected and tested and found in conformance with the applicable specifications forming a part of the description set forth in Kaiser's sales order acknowledgement form. Any warranty is limited to that shown on Kaiser's standard general terms and conditions.

Steven J. Tua, Technical Manager



APR 24 2014



Plant Serial: 35516
Kaiser Order Number: 172560092
Line Item: 1

BENEKE

Product Certification And Testing Report

Customer:

CHERRY AEROSPACE LLC
ATTN: ACCTS. PAYABLE
1224 EAST WARNER AVENUE
P.O. BOX 2157

SANTA ANA

CA 92707-0157

Date >> 5/22/2014

Customer PO No.	BWC Lot No.	Date Shipped
PO165732	26142	5/22/2014
Cust Item ID : M051-0980		

BWC Item No.
2F09808T3741A01

Description:

.098" DIA. +- .0005" 4F 2017 - T37
#4 FINISH, ALUMINUM COLD HEADING WIRE X 22"
BLOCKWOUND 100# COILS.

Specifications:

CUST SPEC M-51 REV. L
FED SPEC QQ-A-430 REV. C

Chemical Limits												Test Results								
Alloy	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Others Each	Others Total	Aluminum Remainder	Case No.	lbs	Diameter (in)	Tensile (psi)	Yield (psi)	Peak Load (lbs)	EL %	Grain Size	
2017	.20 - .8	-.7	3.5 - 4.5	.40 - 1.0	.40 - .8	-.10	-.25	-.15	.05	.15										
852901	.28	.17	3.9	.47	.49	.00	.01	.01												
												42235-1	337	0.0982	67,440.0		510.8			
												42235-2	214	0.0982	69,380.0		525.5			
Total Weight:													551							

JUN - 2 2014



Beneke Wire Company

WE CERTIFY THAT SAMPLES REPRESENTING THE MATERIAL COVERED IN THIS REPORT HAVE BEEN INSPECTED AND FOUND TO MEET THE COMPOSITION LIMITS AND MECHANICAL PROPERTIES SHOWN ABOVE. ANY WARRANTY IS LIMITED TO THAT SHOWN ON BENEKE WIRE COMPANY'S STANDARD TERMS AND CONDITIONS OF SALE.

5540 National Turnpike

Louisville, KY 40214

Authorized
Signature

Shannon King

Shannon King, Plant Metallurgist

Phone: (502) 367-6434

Beneke Wire Company
852901



A74944

KAISER ALUMINUM

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CERTIFIED TEST REPORT

<http://Online.KaiserAluminum.com>

Kaiser Aluminum Fabricated Products, LLC
600 Kaiser Drive
Heath, OH 43056-1088
740-522-1151

Miscellaneous Notes

Made in USA

Mercury is not a normal contaminant in aluminum alloys. Neither mercury nor any of its compounds were utilized by Kaiser Aluminum in the manufacture of this material. Actual (Act) chemical composition is from representative samples taken during the ingot casting process. Independent chemical analysis will vary from these values because of natural variation in the process and testing error. This test report shall not be reproduced, except in full, without the written approval of Kaiser Aluminum. The recording of false, fictitious, or fraudulent statements or entries on the certificate may be punished as a felony under federal law. Chemical analysis performed in accordance with ASTM E 1251-11. The Newark facility is AS9100C:2009 approved. The Newark Laboratory is NADCAP approved for chemical testing (OES).

The products you inquired and ordered are not governed by any applicable industry standard or custom specifications. They are produced, tested and released as such. By placing an order, you acknowledge and accept the full responsibility and liability for their fitness for the intended end use or end uses.

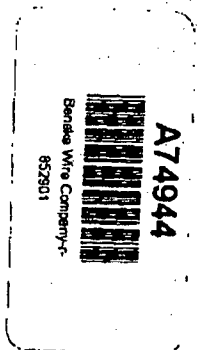
CERTIFICATION

Kaiser Aluminum Fabricated Products, LLP ("Kaiser") hereby certifies that metal shipped under this order has been inspected and tested and found in conformance with the applicable specifications forming a part of the description set forth in Kaiser's sales order acknowledgement form. Any warranty is limited to that shown on Kaiser's standard general terms and conditions.

Steven J. Tua, Technical Manager

Steven J. Tua

JUN - 2 2014



Plant Serial: 35884
Kaiser Order Number: 172563482
Line Item: 1

BENEKE

Product Certification And Testing Report

Customer:
CHERRY AEROSPACE LLC
ATTN: ACCTS. PAYABLE
1224 EAST WARNER AVENUE
P.O. BOX 2157

SANTA ANA CA 92707-0157

Date >> 4/15/2014

Customer PO No.	BWC Lot No.	Date Shipped:
PO164101	25886	4/15/2014
Cust Item ID : M262.1230		

BWC Item No.
2H1230813041A01

Description:
.123" DIA. + - .0005" 4F 2117 - H13
#4 FINISH, ALUMINUM COLD HEADING WIRE X 22"
BLOCKWOUND 100# COILS.

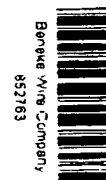
Specifications:

CUST SPEC	M-262	REV. F
FED SPEC	QQ-A-430	REV. C

Test Results

Chemical Limits										Test Results									
Alloy	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Others Each	Others Total	Aluminum Remainder	Case No.	lbs	Diameter (in)	Tensile (psi)	Yield (psi)	Peak Load (lbs)	EL %	Grain Size
2117	.8	.7	2.2 - 3.0	.20	.20 - .50	.10	.25		.05	.15									
852763	.46	.40	2.8	.14	.46	.07	.14												
												41874-1	224	0.1230	29,930.0		355.6		-
Total Weight:													224						

APR 24 2014



Beneke Wire Company
852763

A74728

Beneke Wire Company

WE CERTIFY THAT SAMPLES REPRESENTING THE MATERIAL COVERED IN THIS REPORT HAVE BEEN INSPECTED AND FOUND TO MEET THE COMPOSITION LIMITS AND MECHANICAL PROPERTIES SHOWN ABOVE. ANY WARRANTY IS LIMITED TO THAT SHOWN ON BENEKE WIRE COMPANY'S STANDARD TERMS AND CONDITIONS OF SALE.

5540 National Turnpike

Louisville, KY 40214

Authorized
Signature

Shannon King, Plant Metallurgist

Phone: (502) 367-6434

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<http://Online.KaiserAluminum.com>

Kaiser Aluminum Fabricated Products, LLC
600 Kaiser Drive
Heath, OH 43056-1088
740-522-1151

CUSTOMER PO NUMBER:		CUSTOMER PART NUMBER:		PRODUCT DESCRIPTION:	
				ALY-JUMBO	
KAISER ORDER NUMBER:	LINE ITEM:	SHIP DATE:	ALLOY:	TEMPER:	
172563482	1	04/14/2014	KN17		
WEIGHT SHIPPED:	QUANTITY:	B/L NUMBER:	DIAM/DAF/THKNS:	WIDTH:	LENGTH:
7610 lbs.	33 pcs.	9617		0.000 in.	0.0 in.
SHIP TO:			SOLD TO:		
BENEKE WIRE COMPANY 5540 NATIONAL TURNPIKE LOUISVILLE, KY 40214			BENEKE WIRE COMPANY 5540 NATIONAL TURN PIKE LOUISVILLE, KY 40214		

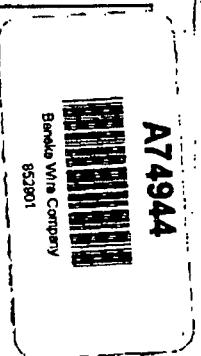
Test Code: 2415

Actual Physical Properties

Lot No.	No. Tests		WGE %	WGU ksi	WGY ksi
852901	2	MIN	30.7	24.8	12.5
		MAX	33.3	25.0	12.5

Chemical Composition, WT. % (Aluminum Remainder)

Lot Cast/Drop ChemID		Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Zr
852901										
9-2F2	Act.	0.28	0.17	3.9	0.47	0.49	0.00	0.01	0.01	0.00
189431										
Chemical	Min	0.20	0.15	3.5	0.40	0.40				
Limits	Max	0.40	0.30	3.90	0.60	0.60	0.04	0.03	0.15	0.05
	Others	Each	0.05	Max			Total	0.15	Max	



JUN - 2 2014



Plant Serial: 35884
Kaiser Order Number: 172563482
Line Item: 1



CHERRY[®] AEROSPACE
SPS Partner Division, a PCC Company

1224 East Warner Avenue
Santa Ana, CA 92707-0157



Accredited

Nadcap[™]
Chemical Processing
Heat Treating
ISO/IEC 17025
Material Testing Lab

Final Inspection & Test Report Cherry[®] Rivet

An ISO9001 and AS9100 registered company. OASIS #6111041606

Lot I.D. No.: **87971282**

Rev: **1**

Customer Parts List

<u>Customer Part Number</u>	<u>Rev</u>	<u>Proc. Spec.</u>	<u>Rev</u>
MS20601AD4W3	1	MIL-R-7885	D2

KAISER ALUMINUM FABRICATED PRODUCTS

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CERTIFIED TEST REPORT

<http://Online.KaiserAluminum.com>

Kaiser Aluminum Fabricated Products, LLC
600 Kaiser Drive
Heath, OH 43056-1088
740-522-1151

CUSTOMER PO NUMBER:		CUSTOMER PART NUMBER:		PRODUCT DESCRIPTION:	
				ALY-JUMBO	
KAISER ORDER NUMBER:	LINE ITEM:	SHIP DATE:	ALLOY:	TEMPER:	
172560092	1	03/21/2014	2117		
WEIGHT SHIPPED:	QUANTITY:	B/L NUMBER:	DIAM/DAF/THKNS:	WIDTH:	LENGTH:
5280 lbs.	23 pcs.	9419		0.000 in.	0.0 in.
SHIP TO:			SOLD TO:		
BENEKE WIRE COMPANY 5540 NATIONAL TURNPIKE LOUISVILLE, KY 40214			BENEKE WIRE COMPANY 5540 NATIONAL TURN PIKE LOUISVILLE, KY 40214		

Test Code: 8000

Actual Physical Properties

Lot No.	No. Tests	WGU
		ksi
852763	1	MIN 21.7 MAX 21.7

Chemical Composition, WT. % (Aluminum Remainder)

Lot	Cast/Drop	ChemID	Si	Fe	Cu	Mn	Mg	Cr	Zn
852763									
2-2F2	Act.		0.46	0.40	2.8	0.14	0.46	0.07	0.14
188927									
Chemical	Min				2.2		0.20		
Limits	Max		0.8	0.7	3.0	0.20	0.50	0.10	0.25
		Others	Each	0.05	Max		Total	0.15	Max



APR 24 2014



Plant Serial: 35516

Kaiser Order Number: 172560092

Line Item: 1